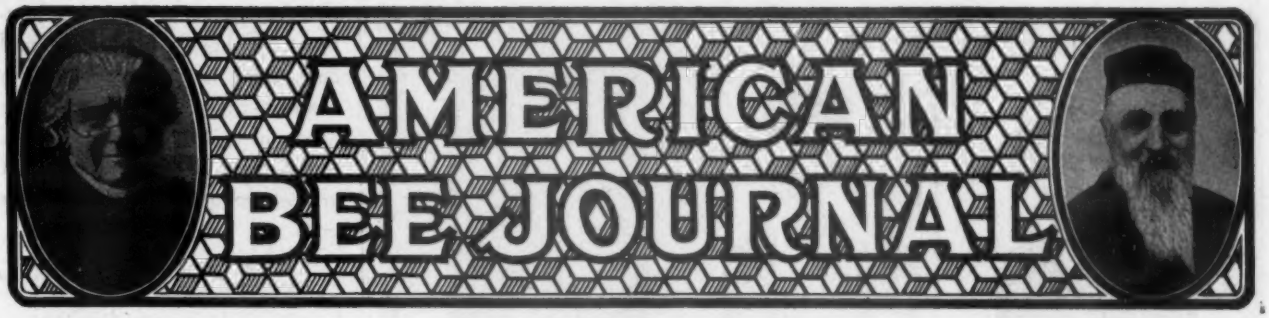


Vol. LXXV—No. 12 Hamilton, Illinois, December, 1935 Monthly, $1.00 a Year

The End of Our Seventy-Fifth Volume

THIS number closes the 75th volume of the American Bee Journal. We have tried to make the monthly issues of our Diamond Jubilee year of more than passing interest. The January number was filled with articles of unusual importance reprinted from former years. We were thus able to bring to our readers material from the pen of Samuel Wagner, first editor of this magazine; L. L. Langstroth, inventor of the movable frame hive; G. M. Doolittle, who developed the modern system of queen rearing; and other leaders who have influenced the trend of our industry.

During the year much material of historic importance has appeared, including the biographical sketches of great beekeeping leaders.

In this last number we have selected articles of special interest from past issues of other bee magazines. Some of these periodicals have long since suspended publication and few copies remain. These articles from days long past will therefore be new and unfamiliar to many of our readers but we feel sure will prove of real interest to every one who wishes to become familiar with the history of beekeeping.

In selecting and preparing the material it has been necessary to review much of the literature of American beekeeping during the years since this, the first magazine in the English language devoted to bees, was born. In so doing we have lived again the outstanding beekeeping events of the past and have come to have a greater appreciation of the work of the pioneers who made commercial honey production as followed today, a practical possibility, we look forward with confidence to a future bright with promise for American beekeepers.

Perhaps a few words regarding the magazines from which articles are reprinted may be of interest. The Beekeepers Review was founded by W. Z. Hutchinson, at Flint, Michigan, in 1888, and was a popular publication for many years. The editor's personality was so impressed upon it as to make it outstanding from the first issue. After his death in 1911, the Review gradually declined in influence until, after a period of suspension, it was combined with the Beekeeper's Item.

The American Beekeeper was published at Jamestown, New York, by the W. T. Falconer Co., from January, 1891, until August, 1908. Harry E. Hill was the editor for many years until he went to Florida and gave up editorial work to enter other pursuits. The magazine was then discontinued.

The Western Honeybee, owned by the California Beebeepers' Association, started publication at Los Angeles, April, 1913, with George Emerson as editor. It continued under the management of several successive editors until 1925 when it was sold to Helen Weightman who discontinued its publication in 1930.

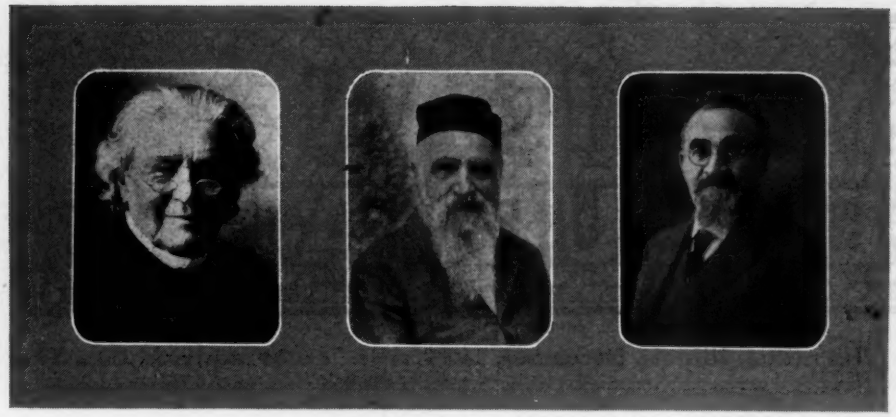
The Irish Bee Journal was founded by Rev. J. G. Digges in May, 1901, and was discontinued with the issue of October, 1933, following the death of its founder and editor. Seldom does the personality of one man dominate a publication so completely during the entire time of its publication. Only one issue was published after Rev. Digges death.

The Rocky Mountain Bee Journal was published at Boulder, Colorado, for a short period from February, 1901, until March, 1904, by H. C. Moorehouse. Its life was too short to reach a position of great importance to the industry but the little magazine had many friends during its brief activity.

Moon's Bee World was published at Rome, Georgia, by A. F. Moon from November, 1873, until January, 1877. It was thus the first bee magazine published in the southern states. Moon had previously been connected with another bee magazine in the North and was well known in the industry.

The British Bee Journal was established in London, England, in May, 1873, only four months after Gleanings in Bee Culture was started at Medina, Ohio, and it still continues.

Our readers are familiar with the present contemporary bee magazines, published each month in North America: Gleanings in Bee Culture, Medina, Ohio; the Beekeeper's Item, San Antonio, Texas; Bees and Honey, published at Alhambra, California, by Geo. W. York, former editor of American Bee Journal; and the Canadian Bee Journal, published by the Peterborough Examiner, Peterboro, Ontario, Canada.



Satisfaction comes from contentment. If honey production and beekeeping is a duty but not a pleasure, there are few who will be happy in it. Mr. Pellett describes well how the older men found that in beekeeping which satisfied their souls.

Among those who were content—L. L. Langstroth, who gave us the movable frame hive; Charles Dadant, who gave us the large brood chamber, and C. P. Dadant, his son and our present Editor-in-Chief.

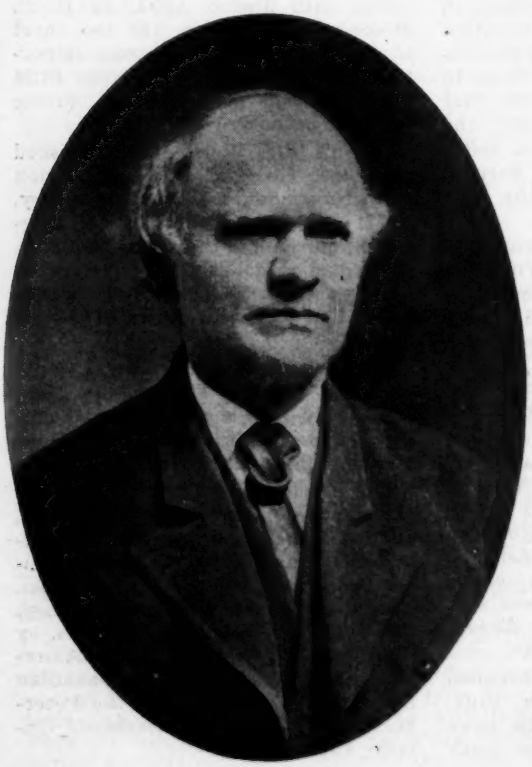
Contentment in Beekeeping

By Frank C. Pellett.

THERE is a saying that in order to decide the right calling in life one should imagine himself a millionaire and consider what he would do if he were wealthy and did not have to do anything. The calling which would hold one under such circumstances is thought to be the one at which the individual can find his greatest success as well as his best satisfaction.

Putting myself to such a test I can think of nothing more interesting than the bees so must decide that I have made no mistake in choosing my calling. It is difficult, however, to imagine myself as free from the necessity of working to pay the ever recurring bills. When the bluejays in the trees above my head keep saying, "play hookey, play hookey," they offer a very enticing suggestion and one which I too frequently follow. With the million it is probable that I would soon neglect the more practical aspects of beekeeping and give myself over to the enjoyment of the pleasures of the environment.

The penalty of success in this calling is to place the emphasis on production and marketing at the expense of mere enjoyment of the ancient rural pursuit. Thus one becomes a honey producer and ceases to be a beekeeper. The late Noah Williamson, former president of the Iowa Beekeepers' Association, once said that when he had only a hundred hives he had a great deal of enjoyment among his bees. He knew each hive individually, the age of its queen, the time it had swarmed and the amount it had stored. After he had reached the point where he had a thousand colonies, he found it to be an exacting business with no time for anything except necessary attention to feeding, requeening, extracting, wintering and selling. The poetry was gone from his daily routine.



Adam Grimm, content with bees, but among our first truly great commercial honey producers.

Thus it is that the industry has developed two distinct types of followers. To the one, honey production is incidental, a necessary incident perhaps, since he must live; but never the impelling motive behind his interest in the craft. Such a one keeps bees because he loves them. He must know every detail of their behavior and try to understand the reason for every action. Rev. Langstroth, who is generally regarded as the greatest of all beemen, is the finest example of this class.

Doolittle is another. He never kept so many bees that he did not have time for leisurely observation and enjoyment, although he made his living from them. It is from the abundance of leisure that the fine arts are born and Doolittle made a fine art of beekeeping.

It often happens that the discoveries of men of this type furnish the secure foundation for the substantial profits of those who follow the craft for opposite reasons. Thus the bee space invented by Langstroth and the system of artificial queen-rearing perfected by Doolittle have provided the means of large-scale production which

Doolittle, father of commercial queen rearing, loved his bees. Here in the greyness of his years, he talks with young Clark, his partner, about the problems of queen rearing.

have made the honey producers and the commercial queen breeders prosperous.

Adam Grimm and J. S. Harbison are examples of the successful type of honey producer who found their chief interest in production. To them success was apparently measured by the extent of their output. Tons of honey, rather than knowledge about bees was the principal objective.

The tendency toward highly specialized commercial industries of recent years has tended to exalt the latter type, although the former can never be entirely submerged while beekeeping remains an important branch of agricultural activity.

Grimm and Harbison were pioneers of the type which has become dominant in recent years, men who placed the emphasis on commercial rather than esthetic values. Their principal interest was in the large output. Their successors of today think first of the production and sale of a carload of honey; the production of a sufficient output to buy for the family a new car and a radio, stock the coalbin and fill the pantry shelves.

The change in sentiment which is so apparent in recent years in the beekeeping industry is probably due in large part to the pressure of present day economic conditions. It is no longer possible to supply the family needs with the output of a small apiary of the size which so happily occupied C. C. Miller, G. M. Doolittle and W. Z. Hutchinson. It is no longer enough to provide food, shelter and clothing. In addition the family now demands transportation, entertainment and a certain amount of that which is called "front." These things cost money and to get them keeps the head of the family too busy to spend much time in esthetic enjoyment of his environment.

Dr. Miller turned to beekeeping when he found himself unequal to the strain of a professional career. He became the most popular leader among beemen of his time. He wrote voluminously and in a most happy vein, but there was little about commercial aspects of beekeeping.

In his "Fifty Years Among the Bees" he has told the story of the vicissitudes of the early years of his beekeeping when he spent more on the bees than be received from the sale of honey. Thus it continued for many years before he was able to balance the budget. The book is full of human interest as well as beekeeping information. One can learn much from it concerning beekeeping management and the use of equipment but more about the attitude of the author toward the business and one reads into the story a decided impression that a life among the bees is one highly to be desired whether or not the returns provide the luxuries of life.

It is interesting to note that the men who are best remembered among those who have gone on, are the ones who were inclined to overlook the commercial aspects of their business. Charles Dadant was an outstanding student of bees but had he worked alone he would probably never have achieved commercial success. It was to his son, Camille, best known as C. P., that the credit for business success was due.

Eugene Secor, in his day one of America's best known beemen, was a successful business man who found outlet for his soul's emotions in his apiary and his garden. All his leisure time was spent with them and he wrote of his activities with so much enthusiasm that he became widely known among his fellows. When disaster overtook his business enterprises, he found solace and real happiness among the bees and flowers which he had loved so well.

To persons of my temperament, something has been lost in the development of the present system. I still retain a joyous memory of the old-time beekeeping which encouraged swarming, when June was a time of continuous excitement from the hiving of swarms. Fifty years ago the sounding of bells and the beating of pans was common in the countryside when the bees began to swarm. Someone would call out, "the bees are swarming" and everybody would run into the open air to make a noise with the first thing on which they could lay hands. It was a happy and excited family which danced about on the ground while the bees gave similar performance in the air. When they clustered, what more natural to assume than that they had done so in response to the clatter and bang of the rolling pin on the tub or the stirring spoon on the dish pan or the wash boiler. We laugh at the idea now, but we enjoyed it then.

Many a time I have sat beside the hive to watch the emergence of the swarm and always I feel some of the excitement that permeates the hive. Apparently to the bees it is one grand holiday and they enjoy it to the full. Although I no longer ring bells or pound tin pans to settle the swarm, as I have seen my forbears do, I still like to watch the bees in their mad flight and their subsequent clustering; and I like to cut down the branch to which they hang and see their joyous entrance to the new hive.

We find that the beekeeper lives in an atmosphere of peace and quiet that compensates for the lack of many material possessions. Perhaps he may yet be able to lead his fellows to a larger appreciation of the real values of life. We may yet realize the ideal of a society where every individual will find the fullest opportunity for self expression with rewards for his labor which are ample for all his needs, and a position which will guarantee equal security to the weak and the strong.

Of one thing we may be sure; that men who follow beekeeping will be constructive rather than destructive in their thinking, will be helpful rather than harmful to their fellows, and that the world will be a better place in which to live because of the contribution which they will make to the progress of mankind.

Let us live in our house by the side of the road and let the rest of the world go by.

Holiday Greetings

Once again we extend our sincere greetings to our readers for the holiday season. With December comes Christmas, a time of happiness and cheer. How eagerly the little ones look forward to this holiday and with what anticipation do they expect the annual shower of presents.

Perhaps there is a tendency to commercialize Christmas to a greater extent than might be desired, but at no other time do we let go and indulge in sending reminders of our regard to a wide circle of friends. We find our greatest joy in giving to children because there is no thought that they will think it necessary to repay us in kind.

We trust that our readers near and far will find occasion for a happy celebration of a prosperous season; that they can find at its close that it has been a generous and comfortable year and that they can look forward to an even better one ahead.

To one and all we extend congratulations for every triumph and sympathy for every misfortune and very sincere wishes that they will find it indeed a Merry Christmas to be followed by a "Happy New Year."

Who Is to Blame?

There is much unmerited criticism of the honey packers because of the fact that they offer low prices for honey. The fact is that they are compelled to do so to remain in business because so many honey producers make no distinction between wholesale and retail prices in selling honey. The packer must sell in competition with local honey in any market and he must pay freight, advertising, packaging and other expenses. When the beekeeper sells a five-pound pail of honey at retail for forty cents, he can hardly expect the packer to pay him at the same rate for a carload.

It would be greatly to the advantage of the packer if there was a stable market for honey which would enable him to pay a higher price. If beekeepers could form some kind of cooperative organization to take over all the honey in each locality and sell to the packers at uniform prices it would be to the advantage of everybody. The packer would be relieved of the constant threat of some beekeeper underselling him in the market and the beekeeper would be saved the annoyance of one producer being played against another in an effort to beat down the price.

The sale at retail of small lots of honey at wholesale prices serves constantly to depress the market and prevent any stabilization. How to overcome this is a great problem which still remains to be solved.

A few years ago a prominent western food distributor decided to add honey to his line. He asked for prices on a carload of honey from several honey producers. In reply he received as many different prices as there were cars of honey offered. He was prepared to pay the highest price asked but decided against taking on honey for fear that no matter what price he paid, someone would undersell him in the market. Thus another good outlet for honey was lost.

The Live Bee Business

Definite information as to the amount and value of the business in live bees is now available through the managing director of marketing agreement, J. M. Robinson, of Auburn, Alabama. The extent of this business is a bit surprising. In 1934 those subscribing to the agreement sold a total of 240,180 queens and 108,730 packages of live bees. The total value was $352,843.34. It is probable that the business for 1935 was even larger, although complete figures have not yet been made public.

Although the first experiment in shipping bees in a combless package was made in 1879, the present package business dates only from about 1915 and is thus only twenty years old. The queen business is much older but the principal volume has been developed along with the rise in the combless package business. The growth of specialization in recent years has greatly changed the ancient craft of beekeeping. Whereas we once knew its followers as beekeepers, we now recognize them as honey producers, as queen breeders and live bee shippers.

A Breeding Problem

At last it appears as though real progress in the breeding of the honeybee may be in sight. Until recently such breeding as was attempted was a mere matter of selection of promising stock with no effort to control mating other than to isolate the stock. When Watson perfected his method of controlled mating it was hailed as opening the way to better stock for the beekeeper.

Of late very real interest in bee breeding has developed and several highly trained men are making a study of its possibility. The search for disease resistant stock has greatly stimulated this interest. There can no longer be any question but an occasional colony of bees is found which is able to keep the hive clean of American foulbrood, but too often the character is lost as soon as the old queen is superseded and replaced by her daughter in the hive.

By means of controlled mating it is hoped to establish a strain of bees with disease resistance as a dominant trait. If the daughters of resistant queens are mated with drones of similar parentage some of them can be expected to inherit the desired quality.

Once bee breeding is undertaken seriously by properly trained men with ample facilities with which to work we may confidently look forward to results such as have been secured in other fields by similar methods.

Bee Conventions

The first American bee convention was held only a few months before the American Bee Journal was born. This first convention designed to be National in extent was held at Cleveland, Ohio, March 15 and 16, 1860.

It is interesting to note that many of the subjects under discussion then are still of interest to present day beemen. The first question up for consideration was the best mode of wintering bees. Langstroth gave suggestions from his experience to the effect that air is essential to successful wintering and said that cold did not kill the bees. Others agreed with him and there were reports of success with an upper opening.

After long years there is a tendency of late to get back to the upper entrance for winter. Langstroth tried many of the things in common use in recent years and discarded them. His experience and teaching has long been overlooked.

Only things relating to bee behavior appear to have received serious consideration at the early bee meetings. There was little mention of selling or advertising of honey or of its preparation for market which take up so much time at most of our present day conventions. Robbing, swarming, and similar subjects aroused endless discussion.

There has been a tendency of late to get away from the subjects which are fundamental to success such as occupied the old timers to the exclusion of everything else. There can be but little question but that these same subjects are of very real interest to the rank and file of beekeepers even today. One has but to note the interest which is at once aroused by the speaker who discusses such a practical subject to prove this point.

One cannot but wonder whether a program along the lines of the early conventions might not attract a larger attendance than is now the rule.

What Makes a Big Honey Crop

Letters coming to the editor's desk indicate a very lively interest in the factors which control nectar secretion. Such correspondence stimulates our own interest and leads to frequent mention of the subject on the editorial page.

But little that is new has been added for a long period although every observant beekeeper can tell much concerning conditions in his own location. Aristotle wrote more than two thousand years ago that the wet seasons produce big swarms and the dry ones big crops of honey. In general we of the present day can agree with Aristotle's conclusion, although there are seasons which are extremely dry and the crop fails altogether or too wet for the bees to prosper.

One of the largest crops harvested in the Middle West came in 1916 following a very wet season the previous year. In 1915 which was a very wet season increase was general and swarms abundant. It certainly confirmed Aristotle's statement that wet seasons bring big swarms. 1916 was very different with abundant sunshine and dry, although not too dry, weather. Again there was evidence that Aristotle was a good observer.

In the upper Mississippi Valley, 1935 started off in much the same way as 1915. There was abundant rainfall and swarms were unusually numerous. White (Dutch) clover is more abundant than it has been for several years and the prospects are for another season like 1916 if weather conditions are favorable.

Legislation

With the opening of the legislative season close at hand we are hearing talk of more laws which the beemen of some states want to have enacted. There is much talk of registration as a solution of the inspectors' problems.

Beekeepers advocate registration with a special tax as a means of raising additional funds. It should be borne in mind that once registration is adopted there is a tendency on the part of the legislature to abandon special appropriations and let the beemen depend entirely upon their tax. Thus the beekeeper soon finds himself with smaller funds than before and must pay the entire amount instead of receiving it from the general appropriation. The legislature very naturally decides that there is no need of a special appropriation any longer and that if more money is needed the tax should be increased.

Since the beekeeper pays taxes into the general fund he should be entitled to the same protection given to others from the general funds. To submit to a special tax is to assume an unnecessary burden since he is not likely to be relieved of his share of taxes to support the general government.

That Blue Flowered Sweet Clover

Most of the reports of the trial of the blue flowered sweet clover or balsam clover are disappointing. In most cases the plants turned yellow in midsummer and died without attracting the attention of the bees.

A few cases, however, were more favorable. C. H. Chatfield, of Revelstoke, British Columbia, wrote on August 26 that the plants were in bloom with the bees working quite freely on them.

Albert Bonitz, of Tichfield, Saskatchewan, wrote on September 15, that it had done very well there, reaching a height of two and a half feet, producing many flowers and a heavy seed crop. He reported that the plant would make excellent hay and that he would seed on a larger scale next year.

Raymond P. Potter, of Medbury, Maine, wrote on July 18, that the plants began to bloom on July 1st and that the bees were on them from early morning until dusk.

Xavier Widman, of Medford, Oregon, reported that plants transplanted to sandy soil did well while those left on clay soil were a failure.

The favorable reports all come from the North which indicates that the plant may be suited only to regions with a cool and moist summer climate. However, it is possible that many of the failures can be explained by the lack of the suitable bacteria required by this plant.

Since many of our reporters state that they have saved all the seed and will try again next year, we look forward to further trials of this newcomer. Since good honey plants add so much to the prosperity of the industry it is worth-while to give any such a careful trial before discarding it as unsuited to our conditions.

More Bee Pasture

The plan to bring about controlled agricultural production promises to bring changes of great importance. If the program of taking marginal land out of production is carried out some very large areas will be devoted to other purposes than the growing of cotton and corn. It may well be that much of it will be used in such a way as to provide extensive bee pasture.

One of the most natural uses for such land will be the growing of forest trees. The kind of trees to be grown should depend upon local conditions and the best use which can be made of the forest products. Black locust is especially well suited to conditions in the Middle West and provides both fuel and fence posts economically. Black locust and basswood are promising sources of nectar and it is to the beekeepers' interest to include them.

Sweet clover figures prominently in the program of stopping soil erosion and is likely to be planted freely in many neighborhoods where it has not been commonly grown.

With new areas being brought into use through irrigation and old ones removed from cultivation through government planning, changes of far reaching importance are taking place which promise to change the location of beekeeping centers.

Carbolic Acid in the Apiary

The recent interest in the use of carbolic acid for driving the bees out of the supers when removing honey reminds us that the drug may be useful in other ways as well. In 1912, the late J. E. Crane, of Vermont, wrote about carbolic acid as a repellent for robbers. With a ten per cent solution sprayed about the entrance of the hives with an atomizer he was able to keep on working at times when otherwise he would have been compelled to stop because of the persistence of robbers.

This raises the question as to whether it may not be possible to carry on work in the apiary regardless of honeyflow by this simple expedient.

Thank You Friends!

For the many kind messages from readers, on the occasion of the sixtieth wedding anniversary of our Editor-in-Chief. They have been happy years for us. There are over thirty of us now to gather in family re-union; sons, daughters, grandchildren and great grandchildren. Again, kind friends, we thank you.

Mating Queens in Confinement

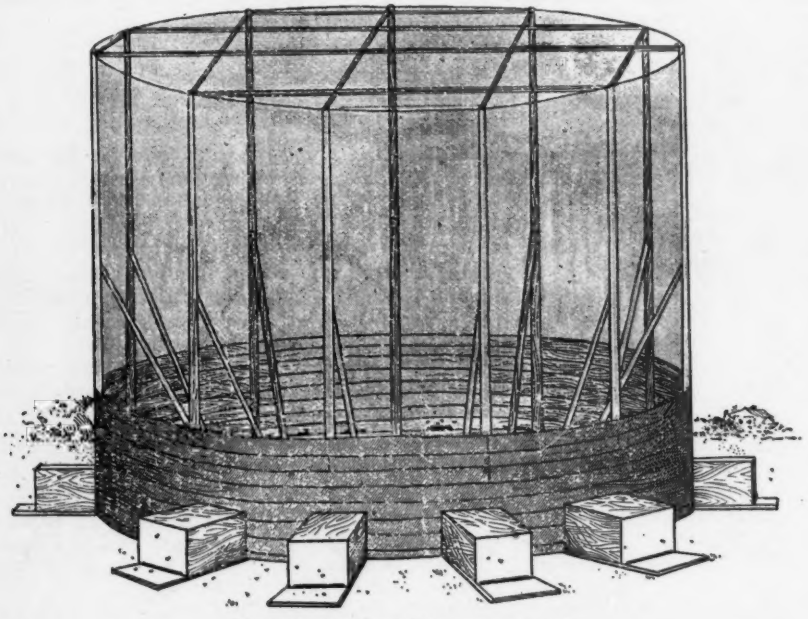
A Georgia Man's Success With 100 Queens

From Beekeepers' Review, February 10, 1901.

By J. S. Davitte.

This laborious attempt to secure controlled matings seems to have had a degree of success. Today, with Dr. Watson's technique in the hands of many investigators we may look forward with confidence to "A New Bee." It is in tribute to all the earlier attempts that we give Davitte's experiment here.

REPLYING to your inquiry as to how I get queens mated in confinement, I will say that I built a large tent, thirty feet in diameter and thirty feet high, the covering being of mosquito netting. Colonies of bees well supplied with drones were placed close up against the wall of the tent, on the outside, each colony being allowed two entrances. One entrance opened outside of the tent, and was contracted so that neither queens nor drones could pass, but allowed the workers to pass out and in, and work in the fields in the usual manner. The other entrance opened into the tent, and was large enough for the passage of a queen or drone; but it was kept closed or darkened for about a week after the colony was placed in position. This was done for the purpose of educating the workers to use the outside entrance. The drones were not allowed to use the outer entrance at any time, nor to enter the tent except from 11:00 A. M. until 1:30 P. M. After the drones had learned the bounds of the tent, they seemed contented, and made a very pretty school flying in the top of the tent. And I wish to say right here that the drones are the main feature of this problem. Once you get them quiet and reconciled to fly in the top of the tent, the problem is solved. Nine times out of ten the queen will not reach the top of the tent before receiving the most prompt and gushing attention. After I got the drones under control I had no difficulty. I simply turned in the queens from the hives they were in, just the same as I turned in the drones. I one year reared about 100 queens and had them mated in this tent. A queen would leave the mouth of the hive, and return in about five minutes, apparently mated; and in three or four days would be laying; and the progeny of all queens thus mated showed the same markings as the workers of the colonies from which the drones were taken.



Davitte's tent and hive arrangement.

The workers seem to be more annoyed than the drones when they find themselves confined in the tent; and I aim to keep them out of the tent as much as possible by not opening the tent-entrance until nearly noon, when most of the workers are in the field. As a further precaution, the tent-entrance is kept shaded or darkened.

The queens are not turned in until the drones appear to be well satisfied with the bounds of the tent; and when they are in this condition I believe that 500 queens a day might be mated in such a tent. Where queen rearing is carried on upon a large scale, I believe that this plan would be preferable to the open air; as I have seen a young queen leave the hive, in the open air, as many as three times, and be gone fifteen minutes each trip, returning at last unmated.

My plan for queen rearing is as follows: I choose a choice colony from which I wish to rear my queens; and from this colony I remove the queen, and allow the bees to build queen cells. At the same time I make queenless such colonies as I wish to break up into nuclei. Two days before the queens will hatch, I form my nuclei, cutting out and destroying all cells, and arranging the nuclei around the bottom of the mating-tent. The queen cells from the choice stock are then cut out and given to the nuclei, the outer entrances contracted so that no queen can pass, and the inner entrances closed entirely. After the young queens are two or three days old, I open the tent-entrances at 11:00 A. M., and leave them open until 1:30 P. M., each day, for several days, or until the queens are mated.

Now for the drones: At the same time that I remove the queen from

the choice stock for the purpose of securing queen cells, I place several hives that are strong with select drones around the walls of my tent, with the outer entrances contracted, as already explained, so that no queens or drones can pass, and, at 11:00, each day I open the inner entrance and leave it open until 1:30. With this daily exercise in the tent, for sixteen days, I have my drones tamed, or accustomed to their surroundings, or under control, so to speak; and it would interest a beekeeper to take his place inside the tent at noon, and see the ladies meet the gentlemen, who, Barkis-like, are "willin." I have seen the mating take place before the queen could reach the top of the tent. Before they separate, the queen and drone fall nearly to the ground, and the queen goes directly to her home that she left not three minutes before.

If I were to build another mating-tent, I should build it about as follows: I would secure twelve tall poles. I would have them at least thirty feet long—forty would be better. These I would plant firmly in the ground, twelve feet apart in a circle. From pole to pole, at the top, I would stretch No. 10 wire to keep the poles true and in place. I would also brace the poles from the inside; and the braces would be allowed to go up twenty feet on the inside, as the drones use only the upper part of the tent. At the top of the poles I would also stretch No. 10 wire from each pole to its opposite neighbor, thus strengthening the structure and furnishing support for the covering that goes over the top. I strengthen every seam of my netting by stitching on a strip of bridle-rein stuff about an inch in width. This allows me to stretch the covering very even and tight without tearing it. Common boards can be used around the bottom to the height of five or six feet. At noon the tent should have the appearance of a sun-palace.

Aragon, Ga., Jan. 22, 1901.

The early cage proposed by Root. It seems adapted from the food covers in use in those days.

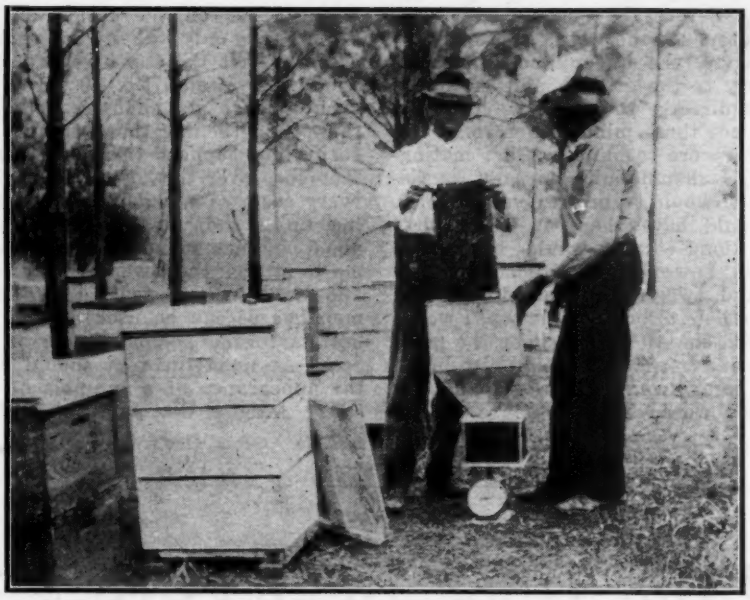
Live Bees by Express

From Gleanings in Bee Culture, May, 1879.

In the May, 1879, issue of "Gleanings in Bee Culture" A. I. Root proposed a revolutionary idea, the sale of live bees by the pound. It was a great historical article. We reproduce it here to give readers an idea of conditions which gave birth to it.

FOR some little time past I have talked to the boys and girls at our noon-day prayer meeting, of the blessings that many times come in the guise of troubles. If we succeeded in everything without trying hard, we would never develop much strength of character, or power of mind or body. Still farther, if we take troubles aright, they almost always do us good, in the end. Well, what good is to come from having our bees all die, as they have done during the past month or two? That's a question I have been asking, and I begin to think I see a little daylight ahead. I have nearly a ton of nice sealed honey in frames, just right to build up new colonies. I can buy nice young queens, very soon now, from our southern friends, at a low price, and with the thousand or more nice combs stored away in the honey house, I could build up an apiary very quickly, if I only had the bees. Where shall we get bees. If I buy, they must come by express, and are almost invariably in some great heavy awkward hive that I have to hire a man to make into kindling wood, after paying several dollars express charges on it. The combs, too, are crooked and not to be compared with those we now make the bees build from the foundation, but I have to pay the express charges on these too, just to get the bees. The apiary, at present, furnishes only three commodities; honey, wax, and queens. Why not make a fourth by selling bees? A quart of bees would be worth to me during the month of May, a dollar, without any question, and you who have plenty of bees, without doubt, could make a nice thing of it, by furnishing me and others who have plenty of empty combs and stores, at the price mentioned. The express charges on the bees alone, will be but

Today, the cage emerges as a tool which time will change but little. It is standardized and efficient.



Filling packages in a modern southern yard.

a trifle, compared with that of a great hive, and now I will tell you how I have been "walking round the stairway," with a view to helping you all.

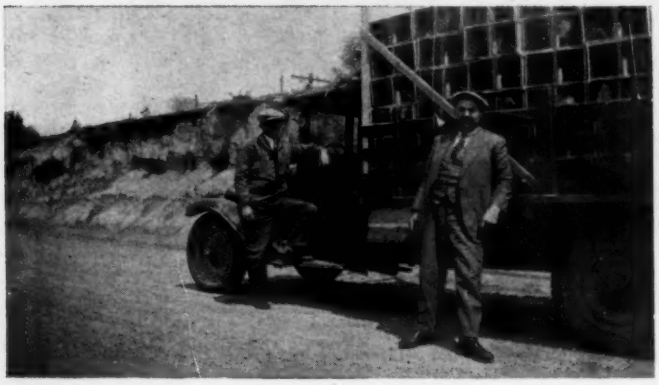
Get a wire cloth screen such as is used to cover dishes to keep the flies away. They can be had of any tinsmith, for a few cents each, and can be had of different sizes. Cut out a piece of board so as to just fit inside, and then make a large hole in the center of the board, so as to leave, in fact, only a ring of wood. Tack a piece of tin on the bottom of the board to cover this hole, and then fasten a low, flat bottle in the center of the hole. A couple of wires twisted around its neck, with the ends tacked into the wood, will hold it. Now the space between the wood and bottle is to be filled with candy. The candy must not be put in until it is nearly cold, or it may break the bottle. Fill the bottle with water, put in a large wick, and the bees will have pure sugar, pure water, and plenty of pure air while on their journey, and the shape of the package is such that the expressmen will not be likely to tip it over, or to throw anything on to it. The engraving on preceding page will show the arrangement.

If you can devise a cheaper and lighter package for sending bees alone, by express, I shall be very glad to have you do so. Perhaps a light pine box with a comb or two of honey in old, tough combs, may answer as well as the arrangement I have described, but if you do not want the bees to die, you would better have wire cloth on at least two opposite sides, and some arrangement for giving them plenty of pure water. Pure water and pure sugar enables bees to stand confinement much better than honey, so far as my experience goes, and if you want simply to confine bees, without having them rear brood, I would not put any flour in the candy.

The price I have mentioned is for live bees delivered at our express office, and if they smother or starve, it will be your loss. A good swarm of bees will often fill a peck measure, and at the price I have given, would be worth $8.00 without any queen. If you choose to send a queen with them, I will allow you the usual price for her. How many bees make a quart? Well, I have just been to the apiary and counted out 100 bees, and found that they weigh ½ ounce, and measure 1/16 of a pint. This would give the weight of a quart of bees at just about 1 pound. These bees were picked from the combs with their heads in the cells. I think a dollar a pound will be a very fair price in the spring, or before the honey season. Weigh your box with the requisite provisions, etc., before the bees are put in, and then again afterward, and you will have their exact weight. Now who will help get this new product of the apiary into working shape? I suppose you know that if you have one stock of bees left, from which to get brood, you could soon replenish all your hives, even if you had no queens at all, for a pint of healthy young bees will raise a queen without trouble, if given a bit of brood during the month of May.

The Market Price of a Bee

There are 3200 bees in a pound, so you see the market price of bees today is about two dozen and a half for a cent. Who wants to sell? And who will buy? Next month I will open a department, and will publish the names of all who will sell or buy at these figures. Names inserted first time free. Now am I not right in saying a good lesson may be gained from all our troubles, if we only look at them aright?



Northern buyers come with trucks to carry a potential gathering force home that may run up totals of many thousand pounds at the end of the crop.

American Honey Producers' League Members, Please Note

The American Honey Producers' League has just received an inquiry for 25,000 pounds of white and 25,000 pounds of water white honey, payable cash on delivery. This honey is desired in shipments of about 5,000 pounds each, and the buyer requiries as much as 10,000 pounds per month.

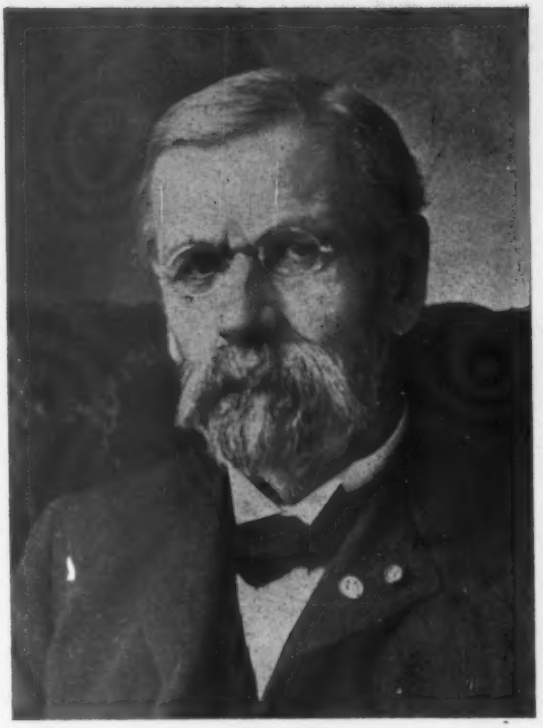
We would be glad to put members who have honey for sale in touch with this market, and members who wish to do so may list their honey with the Secretary so that future inquiries of this nature may be taken care of promptly. Please state the total amount of honey you have for sale, how it is packed, price desired, and also please submit a fair sized representative sample so that it may be forwarded to the buyer.

The League assumes no responsibility for transactions of this nature, aiming only to put its members in touch with buyers; the details of such transactions will be worked out direct between our member and the buyer. —Arlene Weidenkopf, Secretary-Treasurer, American Honey Producers' League, P. O. Box 2020, University Station, Madison, Wis.

Lives of Famous Beekeepers

By Kent L. Pellett,
Iowa.

EUGENE SECOR, 1841-1919.



EUGENE SECOR

I keep bees because I like to. . . . I have drifted into those delightful employments of cultivating fruits and keeping bees as a recreation, and as a means of furnishing the family those luxuries which money cannot buy.—Eugene Secor in American Bee Journal, 1883.

IT was at the annual banquet at Des Moines in December, 1917, that Eugene Secor read his last paper, save one, to the Iowa State Horticultural Society. That was in war time. Gov. W. L. Harding, supreme orator of Iowa, addressed the gathering with a ringing plea for patriotism. John Wallace made an appeal for the Red Cross. The horticulturists at the Oriental tea room that evening of December 12, gave ear to the cause of the nation's destiny.

But iron-gray, stern-faced Eugene Secor told them the "Story of a Garden," which he admitted was also the story of his life. He said gardens, like children, developed with the years. He quickly cast the sound of drum beats from his listeners' ears when he raised his spare form above the table. He took them back through his years rich with living and told them of his garden, the finest fruition of his life.

Each year for nearly thirty-five he had been coming to these annual meetings of the society at the state capital. Each year he had read a paper, now rejoicing with his fellow members over a good season, now consoling with them over a poor year, now telling them how to plant a grove of trees, or about the propagation of new varieties of peonies, and again urging the protection of the Iowa wild flowers or reading one of his poems. Always he had held out hope and an ideal for the future when Iowa would be the state of attractive homes, and the "spirit of home adornment" would take hold of the people.

This year he was seventy-six and could be justified for turning back the pages for a few minutes and telling his own romantic story that started in the days when as a tow-headed boy in New York he had driven home the cows on his father's farm. In that land of the immortal Downings, the first of America's landscape gardeners, his father had caught their spirit, and had budded and grafted and experimented—had tried every new fruit brought to the locality. And in his father's seedling apple nursery the tow-headed boy first had tried grafting.

As he grew older the boy's thoughts turned to the West where he dreamed of establishing an Eden of his own.

When he turned twenty-one he followed his brother David to Iowa, then one vast prairie garden. He stood upon the margin of his western Eden. "Before the breaking plows of the pioneers had turned over the flower beds that God had planted, how beautiful they were!" he said that night to his listeners. "And before the cruel axe had crippled the native forests what a splendid border for God's prairie garden! The memory of the summers spent in Iowa in the early days is but the reminder of lost pictures that can never be restored."

The young man drank in the beauty of the virgin prairie, but he longed too for the plants of his New York home, and procured seeds and scions and trees from the old home and elsewhere. But he found out that it "was a long way climatically from the forty-first degree of latitude north on the Atlantic coast, tempered by the Gulf stream, to forty-three degrees north in the middle west, distempered by a different current from the regions of Alberta," and the peach trees and quinces and sweet chestnuts disappointed him. The roses grew only with special care.

Among the fruits, farmers said, only sour gooseberries and the wild crabapples would grow in this inland wilderness, that the new settlers were destined to leave behind them forever the gardens of their youth. But young Secor and his brother found encouragement after a while when some little white pines did well, and when the red cedar lived. The currant, the raspberry and the strawberry succeeded from the first, and Siberian crabapples grew to be the finest ever seen.

Secor found the old-fashioned lilac would grow in his yard. "It is like the faithful dog that will follow his master uncomplainingly to the ends of the earth and will be the last one to pay homage at his grave." And the peonies grew. "They laugh at thirty below." The bush honeysuckles stayed, "pure white and rose pink," and the snowball and two varieties of phlox, and as time went on a great variety of herbaceous plants and bulbs "that sleep sweetly and safely in their winter beds covered by nature's ermine" came to grace the home among native trees where he took his bride and reared his family.

As the years passed, the dreams he had had as a tow-head boy partly came true. "In the improvement of the herbaceous peony he has brought out of the unknown a few new forms

Mr. Secor loved plants and flowers. Here is a favorite yucca.

and rare colors of delicious fragrance that have anchored his heart to the garden of his early dreams," he told his listeners. "If only Mrs. Secor could walk with him among the expanding beauties of these new creations as she used to the sun of their bliss would never set . . . until something should be produced like her—the sweetest and loveliest flower that ever caught and revealed the smile of God."

This was the talk Eugene Secor gave at that last meeting, but one, which he attended. Full of love for growing things, he wove the story out of his poetic thought. He touched but lightly on the fact that his home, "The Shelter," at Forest City, which he had taken from the virgin prairie, had become one of the show places of the Middle West for its flowers and its shrubs and its fruits—even for its bees and its shorthorn cattle. He touched only lightly on his early hunger for "Eastern apples of precious memory," how he had found that they would not produce in Iowa, and how the quest for apples that would grow there was begun, how he had tried everything the farm papers recommended, with "seed planting and world-searching going forward" until he and others had found that the Wealthy, Northwestern Greening, Malinda and Patten's Greening, with many others, were to do well in Mid-Western soil. He only mentioned that the native Iowa plums he and other pioneers found had been kept and cultivated and improved until at last the easterners were depending first on Western plums rather than those of Europe. He did not mention that he had been a regular exhibitor at his county fair, and that one year he had shown thirty-six varieties of apples grown on his own farm.

That was the talk Eugene Secor gave. He mentioned not at all his long years of work for the society. His listeners all knew of that. He did not tell them of his bees and the fact he was one of the most prominent beekeepers in the United States, or of his work with shorthorn cattle. He did not tell them of the rhymes he had written. He did not tell them of his many sorrows, of the rocks he had encountered which would have shattered a weaker man. Many knew of those things also. He confined his story to his garden.

A year later Secor read a paper, entitled "Possies," at the horticultural meeting. And before another meeting came, he met his death. He was killed by one of his bulls.

Eugene Secor had but little schooling. He attended for a few terms a log schoolhouse near his home in Putnam County, New York. When he came west in 1862 he entered Cornell College at Mt. Vernon, Iowa. But his brother, David, who was acting as county recorder and treasurer as well as postmaster at Forest City, decided to enlist in the Union army, and Eugene dropped his college course to take care of David's work while he was gone. That finished his schooling, although Cornell College later conferred on him an honorary degree in recognition of his ability and his service, and gave him a place on its board of trustees.

In 1868, Eugene was elected clerk of the district court of Winnebago County in his own right, and from that time until almost 1890, he either held county office or was mayor of his city. He served also as postmaster, and later a term in the legislature.

During the eighties, Secor began his writing career in the farm papers and his business career. He ran an abstracting office in the daytime, and studied and wrote for the papers at night. He helped to found the City Bank. Realizing his limited schooling, he read incessantly, and surrounded himself, as later told by his son, with the "best of books, periodicals and people." When he was not confined to his study he often read Shakespeare, Longfellow and the other classics to his children and to his wife, who was an invalid the latter part of her life.

He began keeping bees in 1867, about the time he was married. His apiary never was large. In his "fourth annual report" he mentioned that he had harvested 1,200 pounds of honey an average of eighty-six pounds per colony, and that he would not be satisfied until he could average more than one hundred pounds per colony. In 1892, Dr. Miller wrote that Secor was keeping seventy-five colonies of bees. He wrote a great deal for the bee magazines, on subjects all the way from breeding bees of peculiar traits to extracted honey and the bee pasture from alsike clover. Beekeepers had frequent disasters in trying to keep their bees through those early Iowa winters, and he wrote much on wintering. The Langstroth hives were too shallow for outdoor wintering in his cold climate, he wrote the American Bee Journal. He also warned that the cellar should be kept dry if the bees were wintered there. He said the losses of bees could be cut down if they were put into the cellar early, and the temperature kept as warm as forty-four degrees. He has been proved right in all these observations.

The Secor family were heavy users of honey, and Eugene often told that it was served on the table 365 days in the year. A visitor related that a Secor boy plastered honey on all his victuals, even on his potatoes and hash.

Secor tried to develop the market for honey at an early day, urging that if beekeepers would put up their honey in attractive containers and use neat labels the demand would be increased. That at a time when most food products were sold in bulk.

He often served as judge of honey and beekeeping exhibits at the Iowa state fair; and acted in that capacity at the World's Columbian Exposition which was held in Chicago in 1892 and 1893, as well as at the Omaha Exposition a few years later. In addition to writing for the bee magazines, he was beekeeping editor of a number of farm papers including Iowa Homestead, Farmer & Breeder, and the Northwestern Agriculturist.

But it was for his attendance at the beekeepers' conventions and for his work with their organizations that Secor became best known and was longest remembered by the beekeepers. He was vice-president of the International Beekeepers' Association, elected at the convention in Brantford, Ontario; president of the North American Beekeepers' Association; and for several years president of the first Iowa Beekeepers' Association.

Those were days when bee conventions were social occasions to be remembered the year around, when the leading beekeepers traveled the breadth of the continent to take part in the meetings and festivities. And a speech by Eugene Secor was a flower that would adorn any meeting of beemen or gardeners. His rhymes became as much an institution at these meetings as the bright talk and

The Secor home, in its day, was a lovely place, surrounded with a myriad of interests.

singing of Dr. C. C. Miller. Often Secor wrote songs which Dr. Miller or George W. York set to music for these conventions. These songs were published in a book, "Songs of Beedom." No meeting was complete unless "Beekeepers' Reunion Song," "Buckwheat Cakes and Honey," "Dot Happy Bee Man," or some other Secor songs were sung.

He wrote a poem on the beekeepers' convention for 1887:

At Chicago they met, a right jolly set,
On a soft, balmy day in November,
Such a buzz and roar I heard once before—
At an old cider mill in September.

They talked about bees—their legs and their knees,
Of the God-given nectar in flowers,
Of its value as food, of bare-headed brood,
Of the late sad failure of showers.

The nineties, for all the improvements that had opened new opportunities, were years of grevious problems for the beekeepers. Extracted honey in the days before the pure food laws were passed was an easy mark for the adulterators. Many cheap products were sold under the honey label and customers became wary of buying honey. The beekeepers were so harassed that Secor was led to exclaim that the honey extractor was one of the worst improvements ever made, since its advent made it necessary for the first time for the beekeeper to defend the purity of his product.

In 1897 Secor helped form the United States Beekeepers' Union, an organization to combat adulterators and to defend the legal rights of the beekeepers. He was elected the first manager of the Union, a post he held for six years.

The dues were one dollar. Secor constantly urged that more beekeepers join so that he would have funds to carry on suits against adulterators, and to defend beekeepers who were being unjustly prosecuted.

Newspapers of large circulation often published the report that comb honey was made of glucose and paraffin. Secor sedulously ran these stories down, explained to the editors that it was impossible to imitate comb honey, and pointed out that the A. I. Root Company had a standing offer of a thousand dollars to anybody who would find a comb of imitation honey, but so far nobody had come forward for the reward. Often the editors corrected the stories in their columns, which gave the beemen good publicity at a time when they sorely needed it.

Secor instigated a suit against an adulterator in Chicago. The man was acquitted, but much publicity was given the case. Then Secor, with the aid of Dr. A. B. Mason, the Union's secretary, moved against M. G. Hakes, a Michigan honey dealer. He was convicted of selling adulterated honey and fined. Hakes claimed he got his honey from James Heddon, whose prominence among beekeepers attracted public attention widely to the case and helped to arouse the ire of the people against adulteration.

Two brothers by the name of Utter in New York, one a peach grower, the other a beekeeper, quarreled because the peach growing Utter claimed the beekeeping Utter's bees had hurt his peach crop. They took their case to the justice of the peace, who decided against the beekeeper. The latter appealed to the district court. The Union had some of the most prominent beekeepers in the United States go on the witness stand, while the fruit men also had witnesses. The beemen testified that the mandibles of bees were not adapted to biting or cutting, that they could not harm peaches not already broken open. The beekeeping Utter was acquitted.

In many cities and towns beekeepers were so hampered by regulations or outright prohibitions from keeping bees that Secor was led to write in disgust about "2x4 fathers of 2x4 towns" who tried to ban every bee "that might be found on a honeysuckle or in the act of appropriating a drop of water from a reeking back alley," and predicted that "when some so-called horticulturists and so-called municipal fathers had their way and drove the industrious bee into retirement or bankruptcy, one would see an army of two-legged pollinators going around the country with their camel's-hair brushes and pots of yellow dust, endeavoring to restore the fertility to garden, farm and orchard that existed before the fall—of human greatness!"

Secor's dream was to leave his business duties and devote himself to his flowers and orchard, his bees and his cows. His dream was about to come true when he was sixty, but an employee of the bank of which he was director misappropriated a large sum of money. Secor was in no way liable. But he paid the money in full to the bank. This ruined him financially and he returned to his work. He had to put forth more effort than he had at any time in his life. Only after another decade was he able to retire. Mrs. Secor died in 1912.

A reserved man, rather reclusive for all his associations, and set apart even from his children, he yet found happiness in his family. When after seven sons, a daughter was born in the eighties, he celebrated by writing to one of the magazines, "That first baby girl created an enthusiasm in the neighborhood among the old maids and the young maidens, the married women and little children equal to a beekeepers' convention."

But that little girl and six others of ten children died, and added to his sorrows and those of the invalid mother. The trials that beset him, however, were not able to break his outward calm or dim his friendships. Another daughter, Nina, was his constant companion.

Secor's last love in the garden was the peony. He had brought the double red Officinalis Rubra from New York, where farmers each had a single clump in their front yards, when he had come to Iowa, and the peonies

had been with him ever since. The poor man's friend, he had called them at first. But he and others had improved them until in their fragrance and profusion of bloom they were eagerly sought by the rich as well as the poor. For thirty years he had never known any variety except the common red, until in 1900 he had sent for six other varieties. Every year afterward he had added to his list from the best growers in America and abroad. He started planting seeds in 1904, labeled the plants, and kept a record of their lineage on their mother's side, of all his seedlings. Some of the seedlings including the Nina Secor won attention from authorities who pronounced them of outstanding merit.

Many of his papers before the horticultural society in his later years were on peonies. "This is the month of peonies in the North," he wrote. "It has brought us a bit of the oriental splendor of which our childhood dream. . . This new queen of the floral kingdom . . . yields itself to the landscaper's art and to the enjoyment of the humblest cottager. . " And he ended contemplatively, "Creation is not finished. Every seed holds the secret of a new revelation. O, my soul, may I not be a co-worker with the Almighty in making fairer the face of the earth?"

DOT HAPPY BEE MAN

By Eugene Secor

O I ish vone of dose happy bee mans,
I don't got to vork anymore
I loafs all day on der apple tree shade
Or schmokes mine pipe on der door.
For I haf boughted vone leedle bee box,
Zhust zhammed crammed full of dose pets
Vot vorks all der day und nefer schleep nights,
More'n ten thousand hundert I bets.

I schmokes mine pipe und I vatches dose bees,
Und I laughs till mine schtomack goes schplit,
Ven I see dem go schtrait for Hans Brinkerhoff's flowers
Und nefer suck Yacob's vone bit.
You see dot king bee hef awful schmart got
Und him say to his vimens, "Coome, coome,
You schteals all you can from der peoples round out,
Und pring it to Yacob right home."

O Katrina mine lofe, see dat gold on der legs,
Dem prings a half pound efery day;
Ve schtarts a Pank quick ven dose bees get some swarms,
Und prings in der vealth in dot vay.
Mine frau her shall haf vone new gingham dress,
Der childers don't got to home schtay
Und vork like some schlaves der kraut garden in,
But fish and play pall all der day.

Ve moves on der town und lives like pig pugs,
"In der clover field" so Yankees say;
I'll vash mine feet from der dirt of der plow,
Und jines der Union right avay.
I runs for der mayor or congressman too,
Or president maybe, I guess,
Und all zhust because of dose bees in dot box,
Vot vorks for most notings or less.

In Memory of J. H. McClure

J. H. McCLURE

James H. McClure was killed by a Chicago & Alton passenger train March 27, 1935, at Manchester, Illinois. He leaves his wife, a brother, Carter, and a host of friends who mourn his loss. He was a member of the East Union Baptist Church, the Modern Woodmen of America, Manchester Lodge No. 229 A. F. & A. Masons, of which he served several years a Junior Deacon, a charter member of the Morgan-Scott County Beekeepers' Association and president of it.

He will be remembered as the writer of the Yardman's Notebook in the State Bulletin.

The night was never too dark or the road too bad for him to help some friend or beekeeper. He would let his own work go to give a helping hand. It could be truly said of Mac, "Let me live by the side of the road and be a friend to man."

J. H. McClure was born southwest of Manchester the day after Christmas, 1888. He came from pioneer stock of Old Kentucky.

Mac, as he was intimatey known to his friends, had an inquisitive mind, always trying something new or some pet project. For a number of years he taught school, then tried farming, dairying and finally turned to beekeeping where he was even happier, as he often said he liked nothing better than more bee work.

Reported by Lawrence Fisher.

Ethiopian Soldiers and Honey Wine

By C. M. Litteljohn, Washington.

While war-drums beat and the world rolls its eyes curiously towards Ethiopia and the Italian imbroglio in this ancient land, Honey comes to the fore midst distant battles, in a most sustaining form. Chief of the drinks of the brave Ethiopian officers at the front is a much prefered **Tej**, a favorite honey-made wine—it is said by a shrewd American observer "over there" during the present crisis.

No need for the Ethiopian warriors to do their important work on water, or fight their strange warfare on the aqua fluid. It is the principal drink of the Ethiopian leaders in their rallies and wild attacks against invading hordes; one of their standbys at the front, and an enrichment of their colorful warfare, as well as their lives at home. There are many feast days in Ethiopia, religiously observed, it is said, where the Honey-wine becomes the most pleasurable portion of the meal.

Persons all over the world have been drawn in wonderment towards the strange land in Africa, that warm, rich fertile region, hitherto unknown, little realized, viewed as ripe for conquest and exploitation by Mussolini.

So Ethiopia has come suddenly into the public eye at the present moment, as correspondents flock like flies around Addis Ababa, meaning "Little Flower," to sip the nectar of News, and observe the quaint customs of the barefoot warriors.

Honey-wine is noted as their form of celebration, a spiritual side to warfare, a source of sweetness and strength. The **Tej** is consumed as a part of the merrymaking and drinking that constitutes a feast after battle, adding to the glory of warfare, for the Ethiopian is a soldier who believes there is no more glorious end on earth than to die in battle.

At such times of post-battle merrymaking, Honey-wine is quaffed around the camp fire, rekindling their fighting courage, the courage of the Lions of Judah, who are determined to do the best possible job in thwarting invasion, and safeguarding their land and homes.

Spring Management of Bees

Always Help First Those Colonies That Need the Least Help, Leaving the Weakest to the Very Last.

From Gleanings in Bee Culture, April, 1917.

By Dr. C. C. Miller.

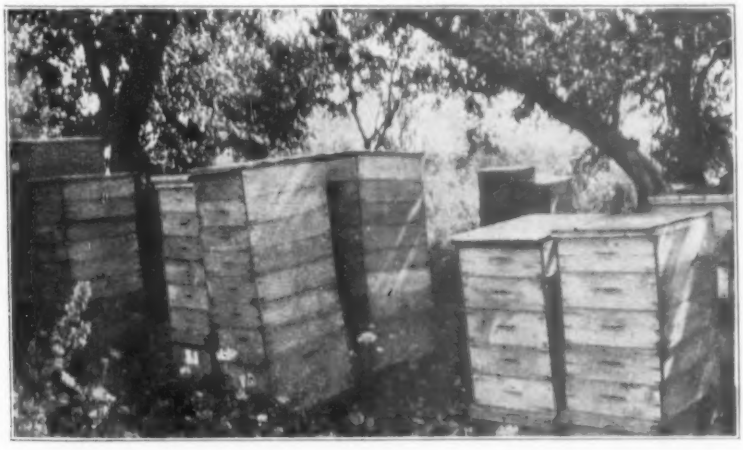
Dr. C. C. Miller at his best.

In the January number, Dr. Miller's replies to questions, in his Questions and Answers department were reproduced. It was long a much sought way of help in time of beekeeping troubles. Here, we give Dr. Miller's plans of spring management. Remember, he was probably the greatest student of comb honey production the world has ever known.

IN the spring, under the stimulus of nectar and pollen brought in, the queen is not very long in getting filled with brood and eggs all the cells that the bees are capable of covering. Until this happens there is nothing for the beekeeper to do unless it be to see that the bees are kept warm and have abundance of stores.

Often, however, when this point is reached, there will be found a very great difference in the strength of colonies. Some may have only enough bees to cover a patch of brood not larger than the palm of one's hand, while others will have brood in five, six, or more combs.

There is a great deal of difference as to the rate of rapidity with which a colony having three frames of brood—let us call it three brood, for short—builds up, as compared with one having only one or two frames partly filled. In the white clover regions of the North the first will go right along increasing in strength and be in good condition for the clover harvest, while the latter will remain stationary throughout the cool days of April, perhaps losing in strength for a time, and become fit for storing a surplus only when the time for storing is over. There is a good reason for the difference. In the stronger colony the proportion of outside bees needed to keep up the heat of the cluster is very much smaller than in the smaller one. While only a fourth of the bees may be needed for an outside wall in the first case, it may need seven-eighths in the latter case.



Dr. Miller's apiary with a bumper crop, after a spring of management such as he describes here.

The aim, then, should be to bring as many as possible of our colonies, as soon as possible, up to that point of strength where they will go right along increasing. This is generally called equalizing, and generally it is equalizing, taking from the strong to give to the weak, but in some cases equalizing the strength of colonies would be the very thing to defeat our purpose. Suppose we have only three colonies, two of them so weak that, if left to themselves, they cannot build up in time for the harvest, while the third is just strong enough

so that it will build up in time to give a fair account of itself in surplus. Now suppose we equalize by taking from the strongest and giving to one or both of the weaker. But as the strongest was barely strong enough to be ready for the harvest, we have now weakened it so that it will store no surplus, and at the same time helped the others so little that we get no surplus from either of the three. So instead of increasing our prospects for a crop, our equalizing has decreased them.

The thing to do is to take the opposite course, and, instead of taking from the strongest, to add to it. So we will unite one of the weak colonies with the strongest. That will make it stronger, and it will develop still more rapidly, so that before long it will be able in its turn to give aid to the remaining weak colony, enough to bring up this latter to storing strength. Thus, although we have one less number of hives containing bees, we have doubled the number of colonies yielding surplus.

So when we have a lot of weaklings on hand in spring, the right plan is to begin by strengthening those that are already the strongest.

But this condition of affairs is not very likely to be found in the apiary of an experienced beekeeper. Most of his colonies are strong enough in spring so that they will easily grow into good storing strength, while with proper management those that, left to themselves, would not be able to do anything on the harvest, can be brought up so that every colony in the apiary will be a storer.

The way to do this is to draw from the strong and give to the weak. That looks easy—is easy—but it is also easy for the beginner to proceed in the wrong way, and thus fail of full success. His first thought is likely to be that the weakest of the weak ones is the one that needs help, and so he works on that basis, constantly giving help to those that need it most, leaving the stronger of the weak ones to be helped last. The rule should be exactly the opposite: Always help first those that need the least help, leaving the very weakest to be helped last. Along with this rule should go another: In drawing from the strong to help the weak, never reduce a strong colony to less than four brood. With these two rules constantly kept in mind there can be hardly any danger of making mistakes.

Let us now have a distinct understanding as to what is meant by "four brood," "a five-brood colony," etc. Nothing is entitled to be called a brood unless at least half the comb on each side is filled with brood, or brood and eggs. If a colony has brood in four of its frames, and one or both of the outside combs are less than half filled, no matter how full the two central combs are, that's not "four brood," but "brood in four." So it may happen that a colony with two brood may be stronger than another colony with "brood in four." For there may be more brood in the two combs of the one colony than in the four combs of the other.

With this definition and our two rules in mind, let us on a good flying day in spring proceed to look through the apiary; and suppose the strongest colony in the apiary has "brood in five." Nothing doing. For if we take one of its best brood from this strongest colony, it will be left with "brood in four," and our rule says we must not make it less than "four brood." But if, on this or a future day, we find a colony with five brood, we will take from it one brood with all adhering bees, making sure that we do not take the queen. The comb we take will be one of those containing the most sealed brood.

Where shall we put the brood and bees we have taken? In the apiary we may have all the way from "brood in one" up, and any colony having less than four brood needs help. So the first colony that we come to having "brood in four" will receive our frame of brood and bees. We need not, however, be so very particular, but give it to a three-brood colony if we happen to find one of that kind before reaching a brood-in-four colony.

Putting into a weak colony a frame of brood with strange bees will not endanger the queen so long as her own bees are so greatly in the majority; but it is well to take pains to put the strange bees at one side of the brood-nest, of course next to the brood.

In taking brood from a strong colony it may happen that we cannot find the queen. In that case we carefully brush off all the bees, but are particular to give this beeless brood only where we are sure there will be enough bees so that no brood shall be chilled.

In making our rounds we arrange the combs in each hive so that the first comb at the furthest side from us shall contain no brood—generally it will have pollen—but next to it shall commence the brood. Then the next time around it will not be necessary for us to go any further than the first brood on the nearest side in order to know just how many brood are in the hive. We will also make a record of the number of brood in each hive.

In our rounds we may come to a colony that has more than five brood. In that case we take all the brood it can spare, only so we leave four brood in the hive.

In this way we make the rounds of the apiary, drawing brood and bees from each colony that has five brood or more, and giving to each colony that has less than four brood. A colony with four brood will be left as it is.

It is possible that there are so many strong colonies in the apiary that in this first round we shall be able to bring up to independent strength all the colonies in the apiary. In that case a brood-in-three colony will need two brood, and a two-brood colony will also need two brood. There will now be so large a proportion of strange bees that the queen will be endangered. Two ways out of the difficulty are before us. We may give a single brood today, and

(Please turn to page 580)

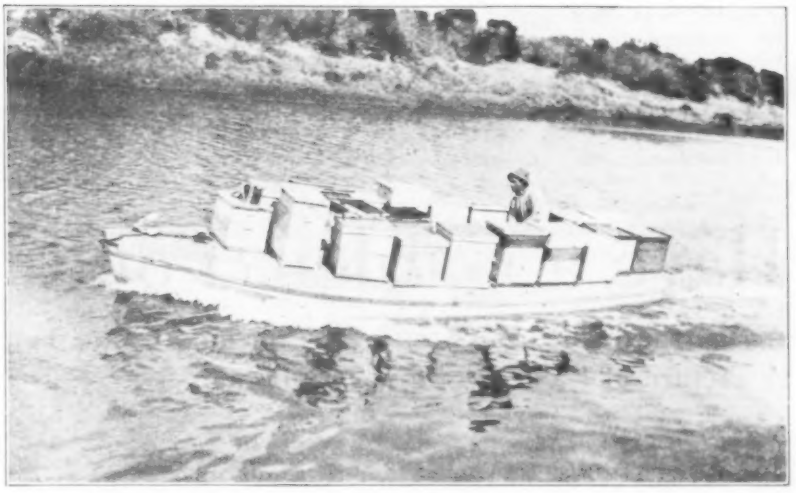
They go in families by boat in these migrating Florida visits.

Migratory Beekeeping in Florida

From the Irish Bee Journal, August, 1902.

By H. E. Hill.

The Irish Bee Journal was founded by Rev. J. G. Digges in May, 1901, and was discontinued with the issue of October, 1933. Only one issue appeared after Digges' sudden death.



Bees by launch to new quarters, a sight not unusual in southern territories.

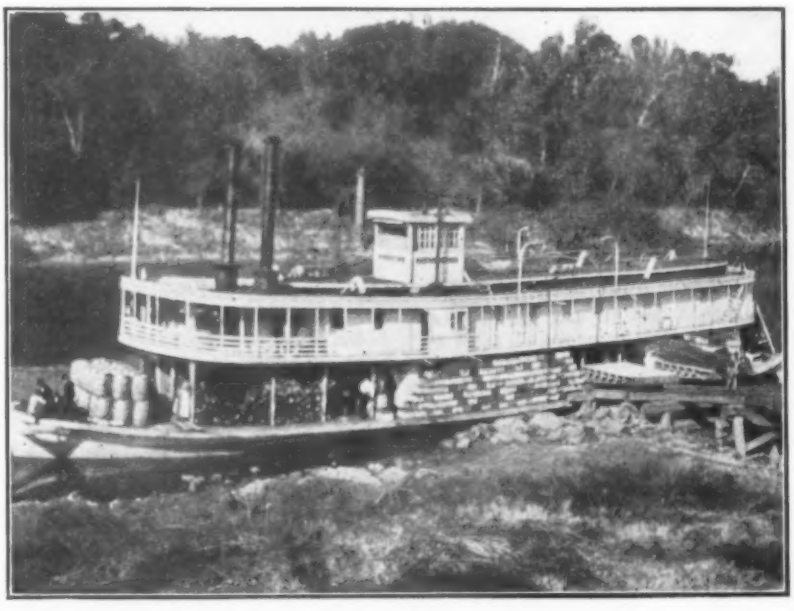
SINCE the days of the ancient Egyptians, who used to take advantage of the successive development of the nectar-producing flora, by transporting their bees, upon flat boats, up and down the valley of the Nile, the same idea has probably been practised to a greater or less extent in various parts of the world. The idea, therefore, is not new. However, it may be of interest to many readers of The Irish Bee Journal to have a glimpse of the methods pursued today by migratory beekeepers of Florida—"the Land of Flowers."

Indian River, be it known, is a sheet of tide-water running parallel to the east coast of Florida. Its width varies from one to six miles, and is separated from the sea by a series of long, narrow islands. So straight is its tidal course that a line drawn taut, a distance of 120 miles, would not touch either shore at any point. Thus an ideal waterway is afforded for the transportation of bees to new pastures.

The chief sources of nectar supply along the river banks are wild pennyroyal, which blooms from December to March. This aromatic herb furnishes a honey of beautiful whiteness, heavy in body, and possessing a very decided flavour of spice, agreeable to many, but not enjoyed by all. In April follows the saw palmetto with its massive festoons of creamy-white flowers, secreting an amber-coloured honey, which is readily taken in the markets. This is one of the main flows usually, as it spreads itself profusely over hundreds of square miles of the Florida coast. In June and July we have the "black mangrove," and the cabbage palmetto, which open up with their bounteous supply of light honey. The former grows only on the low lands of the islands where the tides bathe its roots, hence it is necessary to move the bees from the fields of earlier bloom on the main land, if we are to share its harvest.

It will be noted that the various flows are scattered over a period of several months, thus enabling the alert beekeeper to increase his annual crops by moving. Some very large crops of honey have been produced on the river—averages per colony of 300 to 420 pounds; but such instances are rare. It occurs, not infrequently, that the conditions of the weather at harvest time prevent the bees from gathering a profitable crop. The expenses of moving have to be met, the same during seasons of failure as in the productive years. Murderous ants, the dragon-fly, bears, and storms are obstacles with which we have to contend; so that our "rose" is not without its "thorn." Winter losses from cold and long confinement, of course, do not bother us. We are singularly free, also, from fatal maladies with which the bee is afflicted elsewhere.

The early flow from pennyroyal tends to put the colonies in excellent condition for the more important harvest which follows from saw palmetto in April and May. In order to secure the best ranges, however, it is generally necessary to move the bees. The accompanying pictures, taken by your correspondent, will give readers of the Irish Bee Journal a glimpse of the operation, and scenes familiar to the migratory beekeeper of Florida's east coast. By the use of a large boat, and with careful handling, it is not usually deemed necessary to secure the frames at all. Sites are usually selected adjacent to the river shore, so that the hives are conveniently carried to the transports, and landed, upon arrival, upon the new stands, perhaps fifty miles distant.



Sometimes even a big river boat is loaded with bees. Although today the motor has largely supplanted the boat, some inaccessible locations require water travel.

Owing to the humidity of our summer atmosphere, our climate is not adapted to the production of comb honey. Perhaps 95 per cent of the product is marketed in extracted form in barrels. The work of extracting must necessarily be done in improvised sheds or tents, in such isolated and primeval localities; which are frequently quite remote from inhabited districts. There is, however, a fascination about this wild life and rough-and-tumble style of living; and your correspondent has found a day spent with a brother beekeeper, in his lonely camp amid the hum of bees and roaring surf, frought with interest and pleasure.

Have a Garden, Poultry and a Cow

Advantages of Frugality and the Consumption of Your Own Products. A Picture of Pioneer Life in Minnesota.

From the Beekeepers' Review, February, 1892.

By B. Taylor.

In these days of depression and rapid movement back to the land many are pondering the question of whether to depend on one production effort for a living or to adopt two or more so all the eggs will not be in one basket. B. Taylor's decision was given years ago in the Review. It is just as much to the point today.

IN the several articles in the December number of the Review on tiding over in poor years, I find no remedy very definitely stated, and, with the editor's permission, I will continue the question, by trying to give a little more definite instructions; and in so doing I will give my own experience. I know of no better plan, and I would adopt the same course if I were commencing again at the start.

A majority of young people that commence beekeeping are in that stage of life's experience when they commence cultivating "love in a cottage," and have a family to provide for. I see that several of the writers in the December number hint that a little land to cultivate would be a good thing. Well said, good friends. This thought is the key to the best practical plan I know of for a man of small means to bridge over seasons both good and bad, and is just the plan I have used to keep the wolf from the door through thick and thin.

The second year after coming to Minnesota I lost in a great flood all the wealth that I brought with me. I had nothing left but four acres of land and lumber enough to build a shanty. That was in 1857. I worked out for others enough to get a few nails, built my shanty, cleared and broke my ground, and bought one swarm of bees. I had previously had several years' experience in handling bees, in Wisconsin. I increased the one swarm to six the first year. The second spring I placed my bees upon their stands in good condition and planted my land to corn, potatoes, beans, peas, beets, squashes and other vegetables too numerous to mention. I cultivated them in the cleanest manner possible, and raised enough food of all the substantials to more than provide an abundance for the family. No famine there that year. The same spring I procured 700 strawberry plants of the Early Scarlet variety, planted them in hills, and cultivated them as a lover would cherish his sweetheart. I kept all the runners pinched off, so that by fall each plant covered one foot square of land; covered the plants with plenty of forest tree leaves just as winter set in. I gave them suitable attention in the spring and before the tenth day of July we had picked ten bushels of splendid berries from them. The neighbors looked at the red mass of splendid fruit on the vines and began to inquire what I would take for some plants of that variety. I raised and sold them some fine plants at a fair price. We had more strawberries than we could eat, sold some of them, and this furnished a little money to buy clothing and other things. I went to the woods the same year and dug 150 plants of the common wild black cap raspberries, planted them in four rows of thirty-seven plants each, cultivated them in first class shape, drove stakes every ten feet along the rows, nailed poles along the tops of the stakes three feet from the ground, trained the vines over them and picked twelve bushels of splendid fruit from them the second year. Friends and neighbors wanted some of this fine variety of raspberry. I raised the plants and sold them at a moderate price and made many sales. I increased my bees that summer to thirty-one colonies and sold the honey for $175.

I forgot to say that the first year right at the start I built a neat little house for poultry, made it warm, stocked it with a dozen or two of Light Brahma hens, provided them with suitable nests, fed them well, kept the house scrupulously clean, and we were never out of one of the best articles of food, eggs, the entire year.

The cow? Yes, I made some bedsteads for a friend and exchanged them for a good cow. I gave her warm, clean quarters, and the corn fodder and other surplus raised on part of my land supplied her with feed, and we had plenty of milk and butter to go with the strawberries and potatoes.

The third year we moved one and one-half miles to where I am now writing, where I repeated my first plan. We have been here twenty-eight years and have grown butternut trees from mere whips three feet high until a single tree produced twelve bushels of nuts, and cast a shadow at noon, forty-two feet in diameter. And we have pines raised from stock of which I carried twenty-five in my arms at once. They will now measure seventy-five feet in height and twenty-two inches through the trunk. This place I call "home," and my pines are just a little greener than those found elsewhere. No, a rolling stone does not grow nice trees nor make a nice home; find a good place and stay there.

Several little mounds mark the hills near by. We call them graves. Our

dead. What a terrible thing is poverty and its consequence, ignorance. With more intelligence our loved ones might now be rejoicing in health and strength. We should learn to live, not to die.

I continued the practice of raising pretty much what we needed to eat, and we still practice it as carefully as at first, although I increased my bee business until I produced twenty-six thousand pounds of comb honey in one year.

In this age, grab games of one kind or another get away with more than half of all we earn, when we sell the products of our labor through the regular channels of trade, but when we raise a crop of potatoes, beans, or other foods, and then eat them at our own tables, we get the whole result of our labor. Yes, we should produce all we can to supply our natural wants, and then consume it. This would go far toward settling the question of trusts and monopolies, for trade is what monopolies feed on.

I struggled many years with the idea that we need to be rich in worldly goods. I failed to realize my expectations, but finally became rich by finding that we do not need a great quantity of material things. Simple habits and self-denial give better results in contentment and happiness than over-abundance and luxurious gluttony. It is about time that we comprehend that, under existing conditions and social practices, it is impossible for honest labor to win a fortune in material things. The reason a rich man cannot get into the kingdom of Heaven, is, because Heaven is a condition, not a place; it is justice, love, mercy and charity, and the only means of becoming a millionaire is by violating all these principles.

Another way to help in bad years is to save what we earn in good seasons. Ten cents saved a day for fifty years and properly invested, will make over $9,000 in that time. What a snug fortune for old age. Beer drinkers and tobacco chewers and smokers consume large fortunes in a lifetime by their immoral habits. Don't take one of Brother Root's smokers; just think of the home that this bad habit would pay for in fifty years, and quit without being hired. A family that uses coffee in the average way for fifty years will have consumed a fine mansion. Water is God's drink, coffee is the devil's amendment to it. In the things that experience and science have discovered that our physical and mental well-being demands, I will have, if I can get, without regard to cost; but, happily, these necessary things are very cheap. Don't buy too many new things for the apiary. There is not as much difference in hives to the beekeeper as to the manufacturer. The attempted introduction of fixed frames will do great harm to beekeepers. It is easy to see that the leaders in introducing the Hoffman and other fixed frames are becoming badly mixed. I have always made my own hives and fixtures and would advise others to do so as much as possible, and strive to do all your work of every kind in first-class fashion. I had almost forgot to tell that going in debt is the road to the poor house. Keep out of debt.

Forestville, Minn.,
Dec. 30th, 1891.

Bees in Court

History of the Celebrated Case of Peach Utter versus Beekeeper Utter.

From Rocky Mountain Bee Journal, February, 1901.

The Rocky Mountain Bee Journal was published at Boulder, Colorado, from February, 1901, until March, 1904, by H. C. Moorehouse. It was at that time that much friction developed between beekeepers and fruit growers through lack of understanding of the service of the bees in pollination of the flowers of fruit trees. The case described in the following article attracted wide attention throughout the country.

WHAT was to beekeepers probably the most important action ever brought before a judicial tribunal in this country has been recently decided in their favor.

Near Amity, N. Y., lives two brothers, surnamed Utter. One is a peach grower by general occupation, while the other adds beekeeping to various other rural pursuits. For some time a bad feeling has existed between these two, and early last fall Peach Utter conceived the idea that the bees of his brother, the beekeeper, were injuring his peaches, and even killing the trees. Upon these allegations he based a complaint and brought suit for damages against Beekeeper Utter. The suit was brought before a backwoods justice, who, after listening to evidence that the ten-year-old child of any beekeeper knows is absurd and ridiculous, rendered a judgment of $25 and costs against Beekeeper Utter. About this time the attention of General Manager Secor of the National Beekeepers' Association was called to the matter, who immediately employed competent counsel and appealed the case to the county court.

In the County Court

The final trial came off on the 17th, 18th and 19th of December before the county court at Goshen, the county seat of Orange County, N. Y. The case was stubbornly contested by both sides; about thirty witnesses were examined, and the jury, after about ten minutes deliberation, brought in a verdict for the defendant, Beekeeper Utter.

There were in attendance ready to render expert testimony to the fact that bees do not and can not puncture sound fruit, A. I. Root and E. R. Root of Medina, O.; Prof. Frank Benton, chief of the apicultural division of the National Department of Agriculture, Washington, D. C.; O. L. Hershiser, an attorney beekeeper from Buffalo; W. F. Marks, of Chapinville, N. Y.; and also many others, beekeepers and fruit men from the vicinity, and some from New Jersey. The defense was represented by the law firm of Bacon & Merritt, two of the leading attorneys of Orange County.

Some laughable testimony was given by witnesses for the prosecution, that illustrates some of the prevailing ignorance in regard to bees. It was told how they used their "horns" (antennae) to make the holes, etc. In the lower court, several of the witnesses, so it was reported, testified that the bees got up "on their hind legs" and stung the fruit; went off and left the peach and stung others; that a rotten spot on the points pierced by the stings would

soon set in, and this would be subsequently visited by the bees. In the higher court that same set of witnesses testified that the bees punctured the fruit with the "head end" and not with the "business end." It was evident that the prosecution had realized the utter absurdity of the former statement. The plaintiff, fruit man Utter, while on the stand went on to describe how the bee moved its head first to one side and then the other, and raised up on its head and flopped its wings; that after this performance he found there was a hole. This was corroborated with some variation by his two sons. It was amusing to see the plaintiff try to mimic the bee, on the witness stand, as he swayed his head from one side to the other, raised up on his legs and flopped his arms. His motions were so utterly ridiculous, and so contrary to the real acts and movements of the bees, that every one in the court room, including the jury, laughed, and laughed heartily.

Another witness, Mrs. W. H. Utter, the wife of the plaintiff, testified that the bees would alight on the fruit, and then with their "horns" make holes in the peaches. She stated that there were eight holes in one peach she examined, and that three bees were on it; that after they left there were three more holes, or eleven in all. Mr. Bacon, one of the attorneys, in his cross examination, got at the facts something in this way:

"You say, Mrs. Utter, that there were three holes after three bees had visited that peach?"

"Yes."

"You say that the bees made these holes with their horns?"

"Yes sir."

"Where were their horns located?"

"On the top of the head."

"Two prongs like this?" said he, putting his two hands over his head.

"Yes."

"And they took those two horns and dug them right down into the peach, did they?"

"Yes."

"Well, now, Mrs. Utter, will you tell the jury how three bees, each with two horns, could make only three holes? Shouldn't there have been six holes?"

"Wy-ah, why-ah, wy-ah; they took these two horns and put them together, and then poked them into the peach."

"O—h!" said Mr. Bacon with a wise look.

At this there was an uproar of laughter. When the jury and the audience had subsided Mr. Bacon continued:

"You are sure the bees made these holes with their horns?"

"Yes."

"Well, don't you know that those are antennae, or feelers?"

Several had talked about the so-called 'horns," and how bees make holes with the horns. Some of the witnesses told how the bees ran their "bills" down into the peach, meaning of course, the tongue. But the bill theory was untenable, and the rest of the testimony was then confined to the jaws, which, it was averred, was powerful enough to puncture the skin of peaches.

It was also claimed that the juice ran out of the punctured peaches down on to the limbs, causing the destruction of the trees. Peach Utter claimed damages upon these grounds, but evidence was given in rebuttal to this by two reliable witnesses, showing that he had told them previous to the alleged depredations of the bees, that these trees were dying and he would have to pull them up.

Prof. Benton showed by live and dead specimens of bees, and also by charts which he brought for the occasion, that in his opinion it was a physical impossibilty for the bees to puncture fruit with their mandibles, or jaws; that the jaws of bees were very different from those of wasps and other insects having cutting edges or teeth. He chloroformed some live bees and passed them around to the jury. He showed that the delicate tongue, instead of being a bill which could puncture a sound peach, was more like a camel's-hair brush; that it would be absurd to suppose they could run this through the skin of any substance. He admitted that bees could tear by picking away at fiber, but denied the possibility of their cutting the skin of any fruit. The jaws, or mandibles, had smooth rounding edges, which, he showed by charts, were different in this respect from the jaws of a wasp, that has cutting edges or teeth; that the mandibles were made for forming plastic substances like wax; and even then the wax had to be brought to a temperature of about 90 degrees before such work could be performed.

Every beekeeper in the land should join the N. B. K. A. after this victory.

A Further Report from Virginia on Lespedeza

By D. W. Taylor,
District of Columbia.

At my home in central Virginia, about 100 miles south of Washington, there are available fifteen acres of Lespedeza sericea planted in 1932 in rows three feet apart. The planting was thin and germination poor, but that which came up survived, and this summer about half of the rows had sericea three feet or more high. I examined it on September 9 and found it in full bloom and my bees working eagerly on the little white-petaled blossoms with purple centers. The verdict of the bees was evidently that this sericea was a good honey plant.

It is not practicable for me to obtain pure sericea honey, as the plant blooms at the same time as wild aster, which my bees seem to prefer. It has been my experience that all the lespedezas give honey, including Korean lespedeza, which is still comparatively new. Korean lespedeza, plant and bloom, is very much like the slightly smaller Japan clover, which has been naturalized for years all over Virginia. I have seen a plot of it which had been grazed hard in the early summer and put out fresh growth which was lying on the ground and blooming. Bees were working on it, walking on the ground from blossom to blossom. I have no doubt that the Korean lespedeza produces a great deal of nectar, for under favorable conditions it will mature more than 1,000 pounds of seed to the acre. It has been my experience that grazing cattle prefer the Korean to the sericea, and seems also to prefer the common wild aster, a preference which is, I believe, shared by honeybees.

Long Idea Hive

Near Clinton, Indiana, lives John Mescivic, from that jumble of central Europe, which devils an American to keep straight. A miner by trade, John likes his bees and has his own ideas of how to keep them. The hive he uses is long, with narrow, but deep frames, and honey and brood is accommodated in the one body. Poppleton used a similar hive in Florida years ago. Latham tried them in the wilds of Cape Cod.

Side storage is never as good as storage above the brood. That is nature's way; bees move up for honey and down for brood. Yet the old idea, of saving man power by a simple one-story hive still persists.

Do Bees Carry Eggs to Queen Cells?

I am gathering up arms with J. Simmons, of Idaho, against Latham on the argument whether bees carry eggs to queen cells.

While inspecting my apiary June 20th of this season, I came to my best colony which has one hive body and on which I have placed an excluder and four supers to hold the amount of bees. This colony has produced in the second super a spot of small brood and three queen cells along the bottom of the brood. The worker cells were capped and the queen larva was five days old. All was in perfect condition.

Howard Grounds,
Indiana.

The Brood Area

This picture does not show the huge comb of brood as well as it appeared to the eye. It is from one of those side colony, center storing hives of Otto Harpold's, shown in our November number. Not all the combs in these hives are like it but in one hive he has gone the limit in comb length.

Here we see brood nearly to the wood on either side. The question arises: What is the limit of comb area? Is it wood or habit? Here it is wood. Perhaps we have been wrong in assuming the queen's natural laying habits are dictated by a theoretical maximum comb size. It may be she will lay in any comb to the limits of its dimensions.

A Victim of Misplaced Confidence

From Moon's Bee World, June, 1874.

Moon's Bee World was published at Rome, Georgia, by A. F. Moon from November, 1873, until January, 1877. At that time the patent hive craze was at its height and dozens of patent hives were for sale by agents who went about from place to place selling farm or county rights. This story is typical of the experiences of those days.

YOU having invited correspondence and experience of beekeepers South, I will give in mine, or a portion that happened in 1870, and while it may amuse and discourage some of you who knew more than I did, I hope it will not keep others, who are still sticking to the old box gums from accepting some simple and improved movable frame hive.

I will commence now to tell you that the patent right beehive man then paid me a visit, and shades of Patrick Henry. You ought to have heard his eloquent tongue, as he opened his honey-flowing, moth-proof, bee-preserving, and unequalled buckeye hive, and explained as he exhibited the different parts. He told how "the man who invented it had made it a life study, had spent a fortune and grown poor, and wore all the hair off the top of his head studying it out, and it is now complete and unique, and he was offering it to a waiting public," and I don't now recollect all he did say about it. I think he said if bees and their multiplication was your object you could make a hundred swarms from one, and if you wanted honey all you had to do was to cut it out every morning, and just keep them storing all the time.

I wanted some improved hive, but I was not satisfied, for I knew nothing about them that this was the one. The peddler saw I was rather dubious as to the merits of his hive, and he said to me if I was afraid the hive was not everything he represented, he would transfer a swarm of my bees into one and leave it with me, and after a fair trial, if I was not pleased he would then buy my bees, and no harm would be done. That seemed fair enough, and led me to suppose it was a fair trick, or he believed it to be. I pointed out the weakest and smallest gum for him to operate upon, and the way he handled them, showed he'd been about bees before.

He exhibited the queen bee, the first I had ever seen, and lectured upon the superabundance of drone comb in the hive, the age of bees, different qualities of honey, etc., and I began to feel a right smart kinder towards him and invited him to stay over for dinner.

For several Sundays I was kept busy showing the curious of the neighborhood how the new hive operated, and finding the queen bee and looking at newly deposited eggs, and from the number of visitors I was having, I began to think myself about as important an individual as Esq. Smithson, when he got back from the legislature.

In about a month up turned the patent hive peddler man, and being out in the field at work, he first met my wife. She told him I was perfectly delighted with the new hive, and I was talking about putting all my bees into that kind, and her brother was there a few days ago, and he said he wouldn't mind keeping bees if he had that kind of a hive, that he could open every day and see the bees working, &c., &c.

She was just telling him what I did not want him to know, and I have often thought since that "women in general talked too much with their mouth." He knew I was his meat. To say I was delighted with the hive but faintly expressed it. I was determined to have it.

They were having he said 10,000 made at some manufactory, and they could then sell them cheaper than he was now offering. I paid him $15 for the one I then had, and right to use and make, and $10 for another one he had along, $25 in all, and I tell you I felt about as proud as I did when I went out a few mornings before that and found two mule colts sucking the old mare. He dined with me again, and I invited him to call often, which he promised to do, but I never saw him again.

In a few days my bees swarmed; in fact two hives swarmed at the same time and pitched together. It

was a powerful big bunch of bees. I hived them in my empty Buckeye, and when they quit going in, it just then began to occur to me the thing did not have room enough, for it was full inside and out. It being a very busy time in the crop, I gave them but little attention until about the last of June. The sun and rain together warped my hives, they being made of very thin material, until the top curled up like a piece of hickory bark, and the sides appeared like a yoke of badly broken steers, on a hot day pulling against each other. They were never painted but only stained.

I was very anxious to see the interior of the hive containing the double swarm, and accordingly one day proceeded to look into it. Well you have heard of Allcock's porous plaster, and know something of the sticking qualities of Spaulding's glue and Diamond cement. All of these articles weren't a circumstance sticking and holding fast. I pried, and pulled, and jerked, but it was no go. Them insides were there. Did you ever try to pull a ground hog out of a hole that was a pretty tight fitting one?

I was mad, fretted, and my Irish was getting considerably up, when Pompey, my colored hireling who was about as stout as a gorilla in his arms and from general appearance not many removes from that animal, approached and desired to assist me. The hive was situated on a bench about three feet high. I told Pompey to pull the insides out of that hive. He placed his left foot against the outer case and pulled with both hands, he grasped the right and left of the inside chamber, and gave a pull by way of trying his strength and then with all his might he brought a jerk and out it came with a crash. Pompey lost his balance and back he fell, holding on to the inside frame. The jar in the fall covered him with bees. In about two hours afterwards you ought to have seen Pompey. He was a sight to behold. His lips which before being stung were large, now curling out, like ripe balsam cucumbers and his eyes stuck way back in the flesh, like the blossom end of these water-core apples. That Buckeye has been apart ever since, and for many months furnished the children with chewing gum.

Sherendon.

Building Up from Nothing

How One Man Does Nearly All the Work in Caring for Five Hundred Colonies.

From Gleanings in Bee Culture, February 1, 1915.

By Ira D. Bartlett.

In the February number, this year, readers were told something of Bartlett's present scheme of management. This article, from "Gleanings," was written in 1915 and shows how he made his start. It is typical of the efforts of many of the older beekeepers to get enough bees to make a living.

A few of Bartlett's colonies as they look today.

IT is no uncommon thing for me to be asked all sorts of questions about the wonderful busy bee. How long does a bee live? How much honey does a colony make during the season? How many swarms issue from one hive? and then after giving them the best answers I can they will usually tell of the wonders, as they appeared to them, and the miracles performed by old Mr. So and So, when they were boys—how he used to "swarm" swarms without a veil, and with his arms bare, and how the bees would crawl over his face and arms and he never, never got a sting. They had seen the nice yellow wax, and at times honey, being carried into the hive by the bees, but it was always on their legs. They had been told the uselessness of the drones, and how the bees did the bidding of the queen.

Regardless of how wrong their ideas were they were interested, though they never investigated further. You and I have seen these same things and heard the same stories. The bright pollen that we thought was honey aroused in us the greater desire to go into the hive and see where it was put, and how things looked in there. We were thrilled by the wonders of nature performed by her agent, the honeybee. Many of the readers of Gleanings have just got their first peep into the hive; and, oh the raptures that thrilled their souls! Some of these beginners will follow beekeeping as a pastime; others will engage it as their life vocation. The last named are most interested in how the successful apiarist of to-day got his start, and how he increased his colonies and built up his apiaries to where he could make a living from them alone. It would be impossible for me to give here a complete history of my beekeeping life; but I can tell how I advanced.

When I was a boy I lived in town; and whenever there was a chance I hied me to the country, for there were beauty and glories the town could not reveal. I loved nature. I

A full yard. Years after the early struggle to get stocked, it must give real pleasure to own a yard like this.

was inspired by the song of the birds, the beauty of the growing crops, the fresh, fragrant, and invigorating breezes, and the grand old sun; and the moon and stars were ofttimes my sole companions. I made the most of my trips to the country where there was a very nice apiary, for I liked honey, and soon I was interested in the bees. Early in May, 1895, the owner of the apiary brought me down a nice prime swarm, for which I paid $5.00 in labor on the farm. I was a happy boy, and looked into that hive nearly every day. It is a wonder the bees stayed at all; but they did stay until early in August, when out they came, intending to abscond. I hived them, however; and as we had a late fall with good weather, they gathered enough to winter on. The parent colony reared a queen, and I got them both through the winter safely. I at once subscribed for the American Bee Journal, and soon after for Gleanings, and for two years I believe I read nothing except that which pertained to the bee. I attribute a great deal of my success to this. The following season I increased to seven; and, although there was no white honey stored, there was a heavy fall flow, and all had plenty for winter. Besides, I extracted 175 pounds of buckwheat honey from the super on one of the parent colonies.

The extractor I used was a four-frame non-reversible for which I traded a hound pup, giving $2.00 to boot. This extractor was used until I had nearly 100 colonies.

I wintered my colonies right from the start in winter cases quite similar to what I use now, and was very successful. I started buying colonies from others about me who were not as successful as I, and kept increasing gradually until I had some fifty or so, when I found it to my interest to move them out of town during the summer. I returned the bees in the fall for several seasons, wintering them in father's back yard, and in a neighbor's when father's was full.

Finally I moved for good to twenty acres owned by my father. This ground later became my property, and was my home until a year ago when I moved to town, where I now live.

From the start I got my increase from natural swarming and the buying of bees, and purchased no queens until a few years ago, when I divided my colonies after the honeyflow in July, and purchased as many queens as I made divisions. I have followed this practice until now, excepting that I tried dividing in June this past season on a few colonies. I must say that I was impressed that this method is ahead of the late division. I made nine increase from two, and had four extracting supers filled with honey, besides redividing several of the increase the first of August, when I made my regular increase. Doesn't this look better?

I put into winter quarters this fall nearly 500 colonies, wintering 140 in cellars, and the rest in my regular winter hives, which hold four colonies each.

Now, I have been successful as a whole during my beekeeping career; but you must not think that I have not had to work and study and plan. From the start I had to get ahead as best I could. It took money to buy supplies—in fact, for quite a while it took all and even more than I got from the bees from year to year. My father said I spent more than I earned, and so would never make any money. I realized this, but hoped to get to a point where I would not have to put it all into the business each year.

I economized by making my supplies in a nearby factory, lumber being very reasonable in price. But I surely would not advise any one who expects ever to have a large number of colonies to make his supplies by hand, for to handle large numbers successfully the hives and fixtures must be made right and of uniform size.

Bees that I purchased I always transferred into my own hives, excepting a lot of 104 purchased in hives of different make but uniform. These were reduced to about thirty, and the other bodies used as supers.

When I purchased bees, supplies, queens, or other necessary equipage, I almost invariably paid cash for them, borrowing the money at the bank if I did not have it. I think this method the most satisfactory to all concerned. In this way I have built up my business quicker, and have been able to accomplish much more and to do it much easier. One thing right here ere I forget: Don't let your business increase faster than your knowledge. Keep posted. Read all the bee journals, and supply yourself with the best books on the subject.

The past season I managed three apiaries, doing nearly all the work except during the extracting and packing, and I hired one man. I have worked out a system of handling the bees, and find it only a pleasant pastime to handle four or five hundred colonies, and so am planning to increase to 700 the next season if all goes well. I might mention a few things that I believe are essential to the handling of large numbers with perfect ease:

1. A level ground, or at least a smooth one, with hives systematically arranged for easy access with wheelbarrow.

2. A honey house perfectly tight with escapes in windows, so that all honey may be brought in at one time, warmed up, and extracted. What a pleasure to work stripped right down, with hardly a bee in the house, all because the supers are rid of bees by the use of the Porter bee escape, the bee escape working well because the brood is all hatched and a wood-wire queen excluder placed on at the right time! I find it only a short job to put on the excluders or escapes; for after distributing them I have actually put on three a minute where there was only one super.

The reason I can separate the supers so easily is because the supers are uniform and of proper bee space between. This is due in part to the fact that I clean the top of the frames and take out all burrs just before the first honey comes in. It is not a long job; and, oh the time it saves later! I also clean all extracting frames and supers the same way, using a carpenter's scraper similar to a putty-knife, but wider. The blade is very thin and of steel, and can be purchased for about 60 cents. The

scrapings of the supers and hive bodies will just about pay for labor; so you see it costs nothing and it is done when you have nothing much to do except to watch the bees build up.

I use the Miller feeder to feed the bees after the crop is taken off. This is very easily done. After reducing the entrance I mix up sugar and water—two parts of sugar and one of water if for late feeding; and after weighing the hives (I guess the weight) I pour in the syrup at evening and the feeding is done. I take off the feeders with escapes after the feed has been taken down and they are ready for winter. I use a steam-heated honey-knife, and the latest Root four-frame hand extractor; but I expect to install a power extractor some day. I use Root hive tools, a four-inch copper smoker, and a bee veil of my own make which I think has everything to date beaten. This I will describe and illustrate in a later article.

I have not told how I went to work to do any of the things that are essential to success in this business. I know there are scores of little things that will come up that are not explained. I know that many attempting to do some things that I do may not fare just as I have. On the other hand, many have worked out an altogether different system which proves a success. My methods may not do for some other locality; but remember that ofttimes there is some little kink that really makes for the success of the entire system, and the locality is not altogether to blame. It would be impossible for me to try to explain here, step by step, how I proceed from spring to fall.

I am pretty sure I am right in feeding sugar instead of honey, for in this locality I know that sugar won't spread disease, and is a safe winter store. I know that the queen excluder, properly manipulated, is not a honey excluder, and is one of the greatest time savers known. I know that the escape is indispensable when the excluder is used, and a nuisance when not. I know that a clean level yard is a wonderful help in taking off honey and at other work, and will not ordinarily cause any trouble in getting queens mated. I know, too, that in a well lighted, commodious, tidily kept honey house, free of bees, nearly twice the work can be accomplished, and the honey goes into the cans free from dirt or bees, and is really worth more on the market.

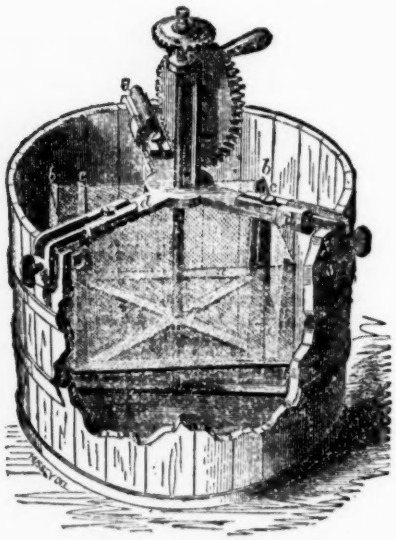
Now just a word to the beginners. It is said 90 per cent fail who enter the bee business. You expect to be among the 10 per cent who succeed. Success is a matter not so much of locality as it is of the man. If you are a good, clean, moral young man, full of ginger and ambition, and exercise some judgment, you will succeed in the bee business as in any other line. Don't think that the bees always work while you sleep. Remember that a little vim and push are required even in this vocation.

East Jordan, Michigan.

Horizontal Honey Extractor

From British Bee Journal, August 16, 1888.

In our January number, Langstroth tells his story of the first extractor. The picture of it is given again here. The development of the radial type of machine has done much to change extracting methods. The horizontal (or radial) first came to attention in 1888. Here is the story of it. Apparently the invention of the radial extractor should be credited to the late T. W. Cowan, for many years editor of the British Bee Journal. His first machine was exhibited at the Crystal Palace in 1874. Later he gave up its use because the combs of that day were not supported by wires and were easily broken as stated in this article. The British Bee Journal was established by Charles Nash Abbot in 1873 and still continues publication.

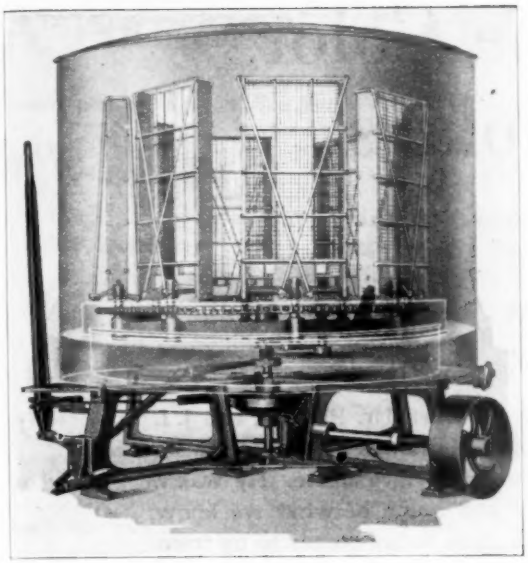


Langstroth's first extractor.

The four-basket machine, still used by smaller beekeepers and long the largest and best on the market.

THE first extractor we made, and which we exhibited at the first show of the British Beekeepers' Association, at the Crystal Palace, in 1874, was on quite a different principle to those we introduced subsequently. A description of it by Mr. C. N. Abbott will be found in the British Bee Journal, Vol. II., pp. 93, 94, as follows.

"The next class, 34, 'For the best honey extractor,' caused no end of excitement. There were four exhibits—one by Mr. Walton, of Leamington, one by T. W. Cowan, Esq., of Horsham, Sussez, and two by Mr. A. J. Starling, of Tottenham Street, Kensall Road, who has been so long before the public as a manufacturer. First in order comes that of Mr. Walton, and between his and Starling's the judges must have had a hard struggle to decide, both having so many similar points, yet being dissimilar in others. Walton's is an unobtrusive-looking machine, fitted internally in the same, or very similar manner to Starling's; the latter has a multiplying cog-wheel gearing, rather noisy in its operations, while the former has a kind of lathe-strap motion equally multiplying, but perfectly silent. Starling's has a hinged door, slightly tapering, like a tailor's sleeve-board, which can always be forced into tight-joint. There was only one thing in which the Starling had the advantage, and that was in the delivery of the honey. In Walton's the honey would be continually running from an open spout beneath the machine, whilst in Starling's it could accumulate in the 'hold' of the vessel, and might be drawn off at any



Then came the big four or eight-basket reversible machines, the last word in efficiency.

•

Finally, the radial; fifty frame capacity, geared for rapid action. What lies ahead?

moment, or in any quantity, by means of a close fitting treacle-valve let into the bottom edge of the cylinder. The plan of operations is similar in both these machines, which are constructed on the principle lately described in Bee Journal, Vol. II., p. 54, so that between them there was just a choice of conveniences. Mr. Cowan's machine was of a very different character; the cylinder was similar, and it was mounted on a similar framework, but the internal economy of the thing was differently arranged. Instead of the combs of honey standing at right angles with the radii of a circle (as with others), and forming two sides of a square within the circle in which they revolve, and which necessitates the reversal of their positions, as each side of the comb is operated upon, they stand perpendicular as radii from the centre of the machine in the same plane with its spindle; and the argument appears to be, that inasmuch as the cells point slightly upwards towards the top bar of the frame of comb, if the frame is placed on end with its top bar outermost, the cells will have their inclination outward, and at the angle which most facilitates the escape of the honey from them."

From this it will be seen that the combs were arranged so as to radiate from the centre. The combs were uncapped on both sides, and the frames were placed vertically in the cages, the bottom bar towards the central spindle, and the top bar furthest away from it. In this way advantage was taken of the upward inclination of the cells. The extractor worked admirably, and both sides were extracted at the same time. We, however, found that it was only safe to extract old combs, for with new ones, if the machine were revolved at too high a speed, there was a danger of smashing them, and we, therefore, thought for general use it was not safe to recommend this machine. We used it for several years in our own apiary, and at last presented it with the collection of beehives and appliances to the British Beekeepers' Association.

With wired frames there would not be this danger of damaging the combs, and being able to extract from both sides at one operation without even having to reverse the combs is certainly a great saving of time. This was the first time this principle had been introduced, and after a rest of more than ten years it again makes its appearance, but in a slightly altered and improved form. The illustration represents the "Horizontal Honey Extractor," invented by M. Buhne-Lauban, of Schlesien, and shows its principle so clearly, that little explanation is needed. In having the cages horizontal, a much shallower tank may be used. The top and bottom of the cage is of woven wire-netting, and after the combs are uncapped on both sides, they are introduced between the wire-netting, the top being made to lift up. The frames are placed just like those in our radiating extractor, with the top bar towards the outside, so that in this case advantage is also taken of the upward inclination of the cells. When in use the extractor can be placed on a table, and slightly inclined, so that the honey may run out of the valve, or hole, at the bottom, into a receptacle beneath. These extractors have the advantage of being inexpensive, and cost only from fifteen to twenty shillings. It is also evident that combs laid horizontally, as in this machine, are not so liable to be broken, consequently, in being able to extract both sides of the comb at one operation, will effect a considerable saving of time.

Introducing By Nucleus

Some correspondents have been having trouble in introducing. After several failures, I have adopted a plan which invariably succeeds. I remove two or three frames from the colony to be requeened, and introduce to this nucleus. After the queen is accepted, I kill the old queen and unite by the newspaper plan.

This plan never fails, because all the field bees go back to the old hive before the queen is released, leaving only young bees which readily accept her. It is particularly valuable during the early building-up period, when it is desired to have a laying queen on the job all the time. Under this plan, instead of all laying ceasing while the new queen is being released and accepted, the old queen goes right on laying, and part of the time both the old and the new queens are laying.

There are disadvantages; it requires considerably more labor than introducing to the full strength colony, and involves finding the queen twice, instead of only once. When the honeyflow is not on, it is very likely to lead to robbing, but this may be avoided by closing the entrance after a few hours with screen wire and removing to the cellar.

I consider that the certainty of the method more than compensates for the extra labor involved.

If you care to use any or all of the above material in the Journal, you are welcome to do so.

Very truly yours,

Edgar Abernethy,
Stanley, North Carolina.

Frank Benton, bee explorer.

The True Color of Carniolans

From the American Beekeeper, July, 1891.

By Frank Benton.

Frank Benton preceded Dr. Phillips, and J. I. Hambleton as Uncle Sam's first Apiculturist in the Department of Agriculture. He was a true explorer and much of what we know about races of bees today comes to us from the early travels and studies of Benton.

IN response to your request for a description of pure Carniolan bees I enclose a copy of the leaflet "Bees," printed January 20th, 1886, containing an article on this subject from my pen. Were I to revise this article now, after the additional experience of four years' residence and travel in Carniola, I might make slight changes, though not material ones, in its statement. This article was copied shortly after its appearance, by nearly all of the apiarian journals printed in the English language, and also appeared in the New York World of May 19th, 1886, and it was then translated into several foreign tongues and published by European journals, the Norwegian version havin the name of Ivar S. Young attached to it as its author (by mistake, of course, you will understand). It has also formed the substance of all information given about Carniolans in the circulars of breeders of Carniolan bees in this country and in England, in most instances the greater part of the article having been incorporated into these circulars with never a mention of its source. I am also aware that about a year since, Prof. A. J. Cook, of the Michigan Agricultural College, published this article, with only slight changes, under his own name, in the American Bee Journal, whence it was copied by the British Bee Journal, and then appeared in French in the Swiss Bulletin International, and also in part in Spanish in the Revista Apicola, the name of the new author having accompanied each appearance of the article. I humbly beg pardon after all this for laying any claim to it. It is true I wrote it first and nothing of the sort giving information about Carniolans had previously appeared in any language, but I never for a moment supposed so many would lay claim to its authorship.

In order to give more specific answers to your questions concerning yellow bees supposed to be pure Carniolans, I add herewith a few remarks explaining why yellow blood crops out now and then among the bees of Carniola. These remarks contain some facts not known to me at the time I wrote the article above alluded to.

The purest type of the Carniolan race is dark gray, or steel colored, larger than our common bees, and wholly free from yellow bands. Whenever yellow is found among bees in Carniola it is to be taken as an evidence of Italian blood. Carniola is located in the southern part of Austria, near the head of the Adriatic Sea, and is only separated from Italy by a single narrow province—Gorizia.

The line between the last named province and Carniola follows a range of mountains extending in a southernly direction from the main part of the Carnic Alps. The history of beekeeping in Carniola shows that the migratory system has been followed there for some centuries. During the buckwheat yield many thousands of colonies of bees are brought by rail and by wagon from all parts of Carniola, and from adjoining districts toward the center of the province. I have seen a railway train bearing five thousand hives of bees and their attendants to the buckwheat fields. Some colonies are even brought over the mountain range which separates Gorizia from Carniola, whose elevation is from 1200 to 2500 feet. Bearing in mind that Gorizia borders on Italy and that its surface slopes toward the Italian line and the Adriatic, and, in fact, that between the Carnic Alps and the great valley of the Po, which drains nearly the whole of the northern plain of Italy, there is no mountain barrier to prevent an ad-mixture of the bees native to these districts, it is easy to understand how it is that the bees southwest of the Carnic Alps shade off or merge gradually into Italians, since migratory beekeeping is not practiced to any great extent in the northwestern province of Italy. With these mixed bees more or less yellow blood has been brought from Gorizia into Carniola and scattered about. In buying or breeding bees in Carniola I have always avoided queens whose workers showed any yellow or rust-colored tinge. Such bees are generally more irritable than the pure Carniolans; they do not breed true to type, and in fact are more like hybrid bees. Nor have I been able to discover that they possess any traits superior to those shown by the distinctively gray bees which are so largely in the ascendency all over the province of Carniola. The bees offered for sale in this country under the name of "Yellow Carniolans," or "Golden Carniolans," are simply hybrids; are bees having blood of some of the yellow races—Italians, Palestines, Syrians or Cyprians—in their make-up. Verily, some do love the color of gold.

I forebear further remarks, beyond stating definitely my own preferences. For the skilled bee-manipulator, who has no prejudices, but wishes to handle his bees rapidly and secure large quantities of extracted honey, Cyprians pure; a selected strain. For the novice and the producer of fine white comb honey, gray Carniolans, the pure race, always gentle and easily managed.

A National "Honey Week"

From Gleanings in Bee Culture, July 1, 1916.

By Lewis L. Winship.

Where are the new things? Most "new" ideas are old ones in new dress. Lewis Winship proposed National Honey Week in "Gleanings" in 1916. Now we swear by it. It is rapidly becoming one of the main anchors to windward.

MY idea, which at present is nothing but an idea, will require the cooperation of beekeepers all over the country to make it a success. It is nothing more nor less than to establish a national honey week—store windows all over the country to be given over to the display of honey. I would suggest that it be managed by the National Beekeepers' Association, and that all state associations be asked to participate, as well as individual beekeepers. It could be managed similar to the "oyster weeks" and "coffee weeks" now in successful operation.

The first year this might not be a decided success, for it would take time; but with proper cooperation could it help but be one in the end? The easiest way to raise money for this undertaking would be to ask beekeepers to donate to this cause what they usually spend for advertising. Printing would be cheaper in large quantities; and, really, what is there to advertising in any form but printing? If the money held out, would it not be a good plan to get up a design for a window display similar to what was used for last year's coffee week? My plan would be to have individual beekeepers ask their grocer and other grocers in their city to put a display of honey in their windows for the week. Perhaps the grocer would not be handling honey at the time, but one could loan him enough in attractive packages to make a display, and let him settle for what he sells. Nine times out of ten he would become a regular customer when he sees how great his profits and sales were on honey. Attractive stickers would have to be furnished for beekeepers to put on their envelopes, stationery, etc. These would not necessarily have to be free, and I think that beekeepers would be glad to pay the post price per hundred for them.

A campaign of this size would be nothing for a large private concern; but to the average beekeeper it looks like a great task. Why should it be such a great undertaking when we have the whole beekeeping fraternity to help? What beekeepers need is closer cooperation and efficiency. When a large private firm goes wrong they call in "the efficiency expert;" when a beekeeper goes wrong he throws down his smoker and quits. This should not be, and we shall never accomplish anything until we learn to stick together through thick and thin, through fat years and lean ones. If this is true in other things, it is also true in advertising, and we can accomplish a lot by sticking together.

When your brother beekeeper makes a sale of honey to an old customer of yours, don't say that you never will speak to him again. Ferret out the reason, and see whether cheaper honey, superior honey, or advertising did the stunt. When you find out, remedy the fault. Advertise if you want business; or if he is selling honey cheaper, find out if it isn't cheaper honey.

What we beekeeepers want is big business, and we must create a sentiment in favor of honey to sell it. My idea of a national honey week is only an outline, and I hope I shall not have to leave it to posterity to see it exemplified.

Springville, N. Y.

Institute Publicity Sells Honey

By H. F. Wilson, Chairman, Institute Finance Committee.

And no less a man than Chairman Wilson says National Honey Week sells honey. That's saying enough.

That the American Honey Institute is becoming well known not only throughout the United States but in foreign countries, as well, is shown by articles appearing in foreign bee journals. A number of such articles praising the publicity work of the Institute have appeared during the past year—the most recent one of which is found in the Australasian Beekeeper for July, published in New South Wales. The title of the article is "Permanent Honey Publicity." Under this heading honey publicity is discussed, and one beekeeper calls attention to the fact that New Zealand honey is receiving the highest price in the world as a result of nearly $50,000 a year having been spent for advertising and publicity, as well as an additional $50,000 spent by an individual company to advertise its honey. One speaker in discussing honey publicity and advertising states—"The Honey Institute of U. S. A. is doing wonderful work in publicity. If we could increase our consumption by one-fourth pound per head our troubles would disappear."

Another speaker remarks that the only way to provide permanent publicity is for everyone to contribute.

It seems strange, indeed, that, with the great number of commercial beekeepers in the United States, less than one thousand of them support a program which produces honey publicity valued at $50,000 to $75,000 a year which commands the notice of the world. Every beekeeper who has honey to sell is riding on the wagon and most contribute nothing to this publicity campaign. Two people in the Institute office work day after day creating publicity for honey. This publicity spreads into every section of the world, and comments and money orders are received from far distant countries to help the publicity program developed by the American Honey Institute.

The pity of it all is this—It would be so easy to increase the American Honey Institute's honey publicity campaign to a point where it would bring a value of several hundred thousand dollars to the beekeeping industry of the United States. If every beekeeper in the United States would pay in to an advertising fund the sum of $1 for every ton of honey produced it would not be long before the honey publicity program could be made so great that every housewife would find it difficult to pass through the day without having her attention called to honey as a food.

The Institute has become so well known in the United States that frequent inquiries come to the office asking where honey can be bought. Following a policy set by the Institute no individual dealer is mentioned—but a copy of the Honor Roll indicating the nearest members is sent immediately to those people making such inquiries and this means that more beekeepers are being brought in touch with the honey markets.

I appreciate quite fully that times are hard and that money is scarce, but during such times cooperation is more important than in times of prosperity. Too many commercial beekeepers in the United States have failed to take advantage of the most important cooperative movement ever started in the United States. In fact, I think many of you should be ashamed for the lack of interest you have

shown and your failure to take advantage of the opportunity that exists for improving honey prices for every individual beekeeper.

We frequently receive letters inquiring why certain beekeepers do not support the Institute. In time, these inquiries are going to become more numerous—do you want to be listed among those who are too indifferent about the welfare of your own publicity to participate in advertising the product from which your income is derived?

Send in your membership at once—or, if you do not feel like you can contribute money, contribute a sixty-pound can of honey and drop us a card so that it can be turned over to one of the State Receivers and the money turned in by them when the honey is sold.

By G. H. Cale

THIS ends the Jubilee Year. To me it has been the most interesting volume of the Bee Journal since I have been here at Hamilton. For one thing, it gave me an acquaintance with the old literature which, besides the interest that naturally comes from it, taught me that there are few new ideas. Many things which I have proudly thought to be original with me have been considered by others before me, many years ago.

— o —

In this, the last number, the articles from the old Journals, other than the American, have as great interest as those in the January issue which came entirely from this paper. Since the Great War, we have jumped a hurdle in social progress and are in a new age. It takes these backward glances to prove that fact.

— o —

It has suddenly dawned on me from reading the two articles on extractors, the one in January by Langstroth describing the original invention, and in this issue, showing the beginning of the radial type, as far back as 1888, that we have nearly industrialized the handling of honey. We need more than anything else, good plans for small honeyhouse plants. Too many beekeepers have broken themselves financially by investing heavily in buildings and equipment beyond their means, only later to find that they were not needed or that their pastures changed and left them isolated with their industrial castle hanging around their necks.

— o —

The story about Florida and river migration, forces attention to the change in transportation which has been brought about by the improvement in roads due to the demands of the automobile. This in turn in our industry has brought extensive pasture migration.

Few realize that hundreds of thousands of colonies of bees each year move in trucks hundreds of miles, from flow to flow. This means increased annual averages; perhaps less expensive honey, although these moves cost. It would be interesting to see accurate and trustworthy cost figures for such operations.

— o —

Pursuing the thought of production costs; on the publication of the report from Davis, California, about the cost of production of honey in the West and of the recent bulletin on the production of honey in the clover region, we began to survey our own figures to see whether we were at the top or at the bottom of this study in the average cost of honey production. According to the government figures, a pound of honey will cost anywhere from 2½ or 3 cents up to 30 cents, depending on location, management and crops. Our own figure hangs around 4 cents from super to market. That includes the cost of production and the cost of marketing. It is easy to figure returns on honey delivered at 5 cents.

— o —

Bartlett's account of how he began beekeeping will interest any tyro who hopes some day to be an extensive producer. Bartlett in 1915 was going through the same apprehensions, failures, disappointments and joys that many a new beekeeper is likewise experiencing today.

Anyone who has read Dr. Miller's "Fifty Years Among the Bees" will recall the vicissitudes through which he went to become thoroughly established with enough bees to make a good return. Like the proverbial saying "It's the first thousand dollars that comes the hardest," we would paraphrase thus: "It's the first hundred colonies that come the hardest."

It is too bad in beekeeping under our economic system, that we must "sell to eat and eat to sell again" but it is so. Few people can divorce themselves in any of their interests from the necessity of returning a profit in cash. However, there are two ways to look at independent living; one, diversity; the other, specialization.

In this issue, Taylor represents the school of diversity. There is much in its favor. Hutchinson, editor of the "Review" represented the school of specialization. His slogan was "The best thing to keep with bees is more bees."

I think it depends on the individual. Some people are never happy without a wide variety of change in the monotony of living. Diversity would be the most interesting for them. To others, it is irksome to be disturbed in the even tenor of their task by any effort except a specialized concentration on one thing. To them, more bees is the way to happiness.

Spring Management

(Continued from page 568)

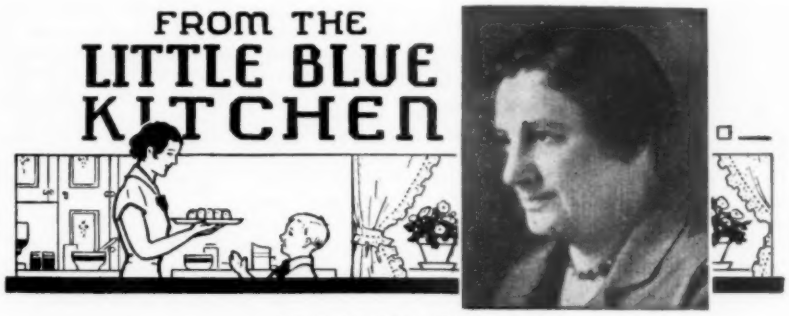
two days later another. Or we can give queenless bees which will treat kindly a strange queen. For this purpose we will draw brood and bees from the strong colonies, and put them in an empty hive on a new stand. All the better if there are enough to pile them two or more stories high. All the field bees will return to their old homes, but abundance of young bees will be left. Two days later we can take these queenless bees with the brood, and, without any preliminary, use them wherever needed, no matter how weak the colonies to which they are given.

Unless we have been so exceedingly fortunate as to bring up to independent strength all colonies at the first round, we will repeat the process every ten or fifteen days until every colony has at least four frames of brood. After the first time around we shall have the advantage of knowing in advance something about the strength of each colony, and which ones are strong enough to yield brood. So it will be a good plan to go first to a few of the strongest and get an advance stock of bees and brood, say half a dozen or so, if the apiary is of considerable size, keeping them in an empty hive to be used as needed.

Of course the number of strong colonies is constantly increasing, and the number that need help at the same time decreasing, so that at the last you can give as many brood as needed to each needy colony. The only safe way to give bees with several brood is to have the bees queenless, as already explained. The last ones to be helped are the very weakest, even down possibly to one or more with brood in only one, a mere handful of bees, the queen be-

ing the only really valuable part. As the season is now becoming advanced, bringing such a colony up to four brood will not be enough. It should be brought up to six or eight brood, and even then it will have nothing but young bees. But each day the number of bees going afield will be rapidly increasing, and at least part of the flow can be utilized. But if the plan outlined be followed up the number that cannot be brought up to have the benefit of the full harvest will be very small, if indeed there be any.

Marengo, Illinois.



By Lida Keck-Wiggins.

WELL, the apple-faced old gentleman with the long white whiskers will be tumbling down our chimneys before we can say Jack Robinson! No doubt many Blue Kitchen readers are all ready for him all ready to augment his load for friends he will visit elsewhere. Others may be getting a bit on edge . . thinking, "I haven't a thing ready to send to 'So and so,' neither can I think of anything she would like, living as she does in that big city, and having at least enough, if not to spare, of the good things of life."

If you ARE so thinking, and you are, as presumably is the case, a beekeeper's wife or daughter or a lady beekeeper in your own right, let's have a chat as to how the hives can help at Christmastide.

First, of course, it's superfluous to suggest that you sell a little extra honey and so fill your yuletide spending-purse. You'll think of that yourself. However, if you happen, by any chance, to be of a vegetable gardener's, or a poultry farm owner's household, and if he, or you and he, make weekly or bi-weekly trips to town and sell the lovely-looking green stuff, or the fresh-laid eggs, from door to door, Honey Lady would suggest that along about this time of year you take with you as attractive as possible little jars of honey. Tie a red ribbon about their necks, stick under the ribbon a sprig of real, or artificial holly, and when you meet your regular patrons, just naturally ASK them if they wouldn't like to buy a jar or two to put into Christmas boxes, or give "by hand" to some friend! Honey Lady just knows that you'll in this way earn a few extra pennies for other things to give.

Then, as suggested at other Christmases, make a lot of honey candy. You can nowadays get lovely holly boxes at the 5 & 10's, in which to pack it. The Nougat suggested last October with recipe in Blue Kitchen will be one kind to use. We spoke then of wrapping it in cellophane or wax paper. The cellophane would be preferable for packing the candy in boxes, and besides it can be had in sheets of lovely colors also at 5 & 10's! Then there's honey fudge. No doubt you know all about making that, but if not, here's Honey Lady's standby:

2 cups sugar, 1/3 cup honey (white clover if possible), ½ cup water, 2 egg whites, 1 teaspoonful almond extract, or lemon or vanilla.

Boil sugar, honey and water until the mixture "spins" into a thread from spoon-tip. Pour this blend over two egg whites beaten stiff with dover egg beater, beating constantly, until mixture crystallizes. When cool add the flavoring extract. Drop in little bits on paraffin paper, or in one large sheet to be cut into squares and wrapped in bright colored cellophane; boxed and labeled against the mailing day!

— : —

Of course all young bee folk know what dandy popcorn balls can be made by dipping the corn into heated honey, but if you make any of these be sure to wrap very carefully, as they absorb moisture if left uncovered in the air.

— : —

For a yuletide holiday breakfast if there chance to be guests, a square of comb honey placed on the bread and butter plate will be appreciated. Nothing nicer to "crunch" with a bite of bacon or to crush and spread on buttered toast! A jug of extracted honey will "go well" with a waffle serving.

— : —

Speaking of waffles makes one think also of griddle cakes, and Honey Lady has an idea to pass along on this score. In the village where she now lives the churches are having a regular siege of pancake suppers. With these they advertise little sausages, coffee and perhaps pumpkin pie. Now where beekeepers abound and the sweet honey nectar flows, why not such a supper with honey advertised instead of syrup for the sweetening? It would be a "different" note and would help earn precious pennies for the church!

— : —

A very dainty appetizer to use before the big Christmas dinner is a sherbet cup of peeled and diced grapefruit, which has been soaking all night in honey and chilling in the refrigerator.

— : —

"Bee Lines"

A quick way to remove the odor of onions from the hands after peeling them is to rub them with dry salt. Soap will not turn the trick.

A good sized "bite" of bread held in the mouth while peeling onions saves the tear ducts.

A piece of peeled potato stuck on the end of the paring knife will also prevent tears, when preparing onions.

— : —

Here is a little way to utilize extra juices found in canned fruits. Have a jar for the purpose, pour into it the spare liquor from canned pears, peaches, apricots or any other fruits. Then pour in a half cup of extracted honey. Keep jar in refrigerator, and some day when serving prunes that have been on hand for a little while, warm them up in some of this fruit-juice mixture; cool and chill, and you'll be surprised what a delicious dessert you have to offer.

— : —

Mince meat sweetened with honey has a "different" flavor that makes the pies something once tasted never to be forgotten!

— : —

If you want to add an extra touch to the Christmas party ice cream, pour over it a sauce made of 2 tablespoonfuls of butter; 2 of cornstarch and ½ cup honey. One makes this sauce by cooking together the cornstarch and butter, though not allowing them to brown, and then adding the honey and cooking the whole blend until hard when dropped in cold water, and after all taste of the raw cornstarch is gone.

— : —

Merry Christmas Blue Kitchenites!

The publicity department of the Ford Motor Company has released the following information, of interest to beekeepers:

"Beeswax is not so much used as it was, but it still serves in electrical imbedding compounds, and the tons of beeswax used in making 1,000,000 cars will require the labor of 93,000,000 industrious honeybees."

Elmer Carroll,
Michigan.

THE EDITOR'S ANSWERS

When stamp is enclosed, the editor will answer questions by mail. Since we have far more questions than we can print in the space available, several months sometimes elapse before answers appear.

STEAM FOR STERILIZING

About the Beach wax tank—is it possible to destroy foulbrood bacteria in this tank by steam pressure?

I was thinking that a diseased hive could be cyanogassed then remove bottom board and set the whole works inside tank, shut lid tight and adjust steam gauge to register high pressure.

Perhaps adding a small quantity of carbolic acid would fumigate the stuff inside of tank or some other disinfectant that would not stick to the hive and leave a bad smell on treated hives. I have been burning my diseased combs and frames and boiling the empty hives in boiling lye but do not like to use lye as it gets brushed around after dry and causes corrosion of hand cloths, etc., unless washed by turning a garden hose on it.

It seems to me the Beach tank would make short work of this job.

I would like to rebuild my tank like the Beach tank under a screen shed and if I put a diseased hive in it for rendering I could save the wax, although I believe I ought to take this wax and boil it after steam has forced it out of the tank, then run the diseased honey into a sewer where no bees or flies can get at it.

If a drop of diluted diseased honey is accidentally spilled on floor would the air and sunlight destroy the bacteria, or would it dry and get blown around the room.

If diseased honey is used in coffee or tea then the empty cup washed with soap and hot water, then this water thrown outdoors when bees could get at water would they be in danger of carrying this foulbrood water to their hives, or do you think the soap destroys the spores?

I keep two large water tanks (clean) out for my bees at all times, but I have seen other apiaries where bees are forced to go to dirty pools and hog tanks for water because their owners don't give water.

When I inspect my bees in fall for foulbrood, I have too much trouble with robbing. How would the following scheme work?

Remove bottom board and slip an empty hive body under this hive to be inspected, then remove the lid and spread a carbolic acid cloth over the hive to drive bees down into the empty hive to get them out of the way. The cloth should have a long slit cut in it, two inches wide, so that a frame can be pulled up through this slit. The cloth could be moved along to keep the slit moving to the next frame to be pulled out and inspected. This would keep robbers off the combs as they won't go near the cloth.

Two cloths and empty bodies could be used so that the hive ahead can be adjusted and given time to let bees go down while first hive is being inspected.

I need to inspect my bees in late fall after all brood is hatched but nearly half the bees in every hive gets killed in robbing so I gave it up for spring work.

Do you think the carbolated cloth idea would work? Would the fumes kill any unsealed brood?

What strength carbolic acid mixture should be to apply to cover cloths?

NEBRASKA.

Answer.—You ask if it is possible to destroy the germs of disease in this tank by steam pressure. Yes. Close the tank, steam for half an hour.

It would not be necessary to add carbolic acid or disinfectant. Even the fourth stage of the germs of American foulbrood cannot withstand a half hour of heat at the temperature of steam.

After removing the equipment from the tank, it is best to clean it again to remove wax and propolis by immersing in lye or hot water.

Be sure to dispose of the disensed honey by way of the sewer as you plan. A drop of diluted diseased honey would probably not cause any trouble unless it was picked up immediately by a single bee and carried back to its hive and deposited in the cell. Even then the dilution might be great enough not to cause disease. It has been found that when the count of bacteria is below 50,000 to a cubic centimeter that disease will not appear.

It is not necessary when using honey from a diseased colony at the table, to employ any more than the ordinary cleaning method of the kitchen to make the utensils safe or to dilute the honey sufficiently so that it can be thrown outdoors.

In answer to your question about using an empty hive body and a carbolic screen for inspecting in the fall, you will find that this will work. We use a similar method. The fumes of the acid will not kill the unsealed brood. Use full strength acid. It is not necessary to dilute it. A small amount of full strength acid is just as effective as a larger amount of diluted acid.

CLOSING HIVES TO MOVE

What is the best method of closing up hives for transporting in truck or car?

I have seen them closed with a screen wire frame, the size of the hive. No doubt there is one best way of doing this. We note many truck loads of bees going south on Highway 75, no doubt coming out of the dust covered districts west of us.

The dandelions painted everything yellow including combs and the best behaved swarms have been on a tear. I have had 16 swarms from 10 colonies and I seldom have a swarm, they are settling down now and making honey on sweet clover, I have third super on some of my colonies. Thanking you for this information, thought you might have a bulletin on the subject.

NEBRASKA.

Answer.—Our method is to close the entrance of each hive tight at night. The day before we put a screen about four inches deep on top of each colony and staple this to the hive body. The bottom board is stapled to the hive body also. Ordinary window screen is used on top of a wooden frame. All cracks and crevices are stopped with cloths.

The hives are loaded and moved the next day, the entrances having been tightly closed with wooden strips the night before. When moving by truck, we prefer an open body. A staked or slatted construction so the bees will have plenty of air. On top of each moving screen, we nail crosswise three 1-inch by 2-inch strips to prevent hives when piled one on top of another from damaging the screen and also to keep the layers of hives separated so that there will be a current of air through and under each hive.

We do not have any bulletin on this subject. We do not consider this necessarily the best way but is the one we have always used successfully.

STERILIZING COMBS

I am a new subscriber to your magazine and also a new beekeeper. Am not disappointed in our first issue which was September, 1935.

Noting with interest an article on the treatment of foulbrood combs, I have some foulbrood this year and am at a quandry just the best way to get rid of it.

Please help me if you can.

OREGON.

Answer.—There are three ways which have been developed for sterilizing combs—(1) by chlorine gas, (2) by soaking in water formalin or (3) by soaking in alcohol formalin.

The treatment with chlorine gas has proven to be a failure since too many of the combs are not thoroughly sterilized and while they seem to be so for a season, develop disease later. It is not to be recommended.

Soaking combs in water formalin is described in a publication put out by the University of California. Write to Geo. H. Vansell, Associate Apiculturist, Pacific States Bee Culture Field Laboratory, Davis, California.

The alcohol formalin treatment is by means of a solution developed by Dr. Hutzelman's solution. Write to Dr. Hutzelman, Glendale, Ohio.

Now for some advice. We have long ago given up the treatment of combs by any of these methods. It is possible to sterilize combs with a formalin solution so that they are perfectly sterile. However, when they are given back to the bees if the combs have not been thoroughly washed and dried, they injure the bees due to the deposit on the wax of certain chemicals from the solution which are injurious. In any event, the combs are so brittle that the bees damage them often carrying them out and rebuilding with drone comb. For this reason it is not a satisfactory process.

There is no way known which is better than rendering the combs, cleaning the frames and starting with new foundation.

ASTER

I am sending you a plant that's crowded with bees all the time.

Will you tell me what the name of this plant is?

My bees got twice as much honey in 1935 as they did in 1934. I work for comb honey. The first swarm I caught this spring made two supers of honey, so you see honeyflow was not bad. KANSAS.

Answer.—The plant you send appears to be the late field or frost aster **(Aster ericoides)**, which is reported as a very good source of late honey in Missouri and near by territory. You are fortunate if you are within reach of a plentiful supply of this plant.

SOLITARY BEES, HONEY PLANTS, ETC.

I am mailing you two field bees. No one seems to handle them. They work all flowers and they have the same build as our honeybees, such as the Italians, and I would like for you to look them over and tell me just what they are called.

(2) What kind of flowers grow around here, and how long do the different kind yield?

(3) Can a package bee build up to full strength? I mean to gather enough honey and pollen to winter them.

(4) If anyone gives them full sheets of wired foundation, what kind of foundation do you prefer, wired or plain? Also, what kind of bottom bar is best in the long run?

(5) Do you prefer to pack bees here in winter? Some beekeepers cover hives with hay and straw, others don't pack at all. What do you suggest?

(6) What are the different strains of honeybees besides Italians, Caucasians, Carniolians? Where can a person purchase same (give address)?

(7) Where would you chose to start a bee yard in New York state, or do you prefer another state for beekeeping, if so, why?

NEW YORK.

Answers.—(1) The bees you send are solitary bees which are seen quite commonly on the flowers in summer. They do not live in colonies like honeybees, but in pairs. The female deposits a ball of pollen in a cavity in which she lays an egg after which she

closes the cavity and leaves the young bee to look out for itself by feeding on the store which she has provided.

(2) The principal honey yielding plants in the northern states are the clovers, basswood, buckwheat, and in some localities alfalfa. In addition every locality will have some plants which yield honey which are not common to a very wide area. In New York are to be found such plants as purple loosestrife which is common along the Hudson River, in the Mohawk Valley and other localities; clethra which is important in some neighborhoods and such plants as sumac and goldenrod. The honey plants of New York represent a rather long list.

(3) Package bees often build up and store a good surplus of honey the first season if they are received in early spring.

(4) We prefer to use the wired foundation with slotted bottom bar but good combs can be secured by the use of the plain foundation when carefully used.

(5) Bees which are carefully packed are much safer for winter outside than those which are not packed, but a good windbreak is equally important.

(6) Italians, Caucasians and Carniolans are the only races of bees now commonly offered for sale in this country. All are advertised for sale in the pages of the bee magazines.

(7) We regard New York state as a very good state for beekeeping and one who is acquainted there will probably do as well or better there than to go elsewhere.

Meeting of the 4th District of Michigan Beekeepers' Association, Dec. 4

The meeting of the 4th District of Michigan Beekeepers' Association will be held on December 4 at 10 A.M. at A. G. Woodman's warehouse in Grand Rapids, Michigan. The speakers will be Harold Albaugh, Ralph Blackman, Frank Rasmussen, Jay Cowing, D. P. Barrett and R. H. Kelty. Also a government film will be shown, "The Realm of the Honeybee."

Michigan Annual Meeting, Dec. 18

The annual meeting of the Michigan Beekeepers' Association will be held on December 18th at 10 A.M. in the Horticulture Building, Campus Michigan State College, East Lansing. Program of this meeting will be mailed to all members about December 4. All beekeepers cordially invited. The big Horticultural Show is on at the same time and all attending can see that, too, and it is well worth seeing.

R. H. Kelty,
Michigan.

Revised Beekeeping Correspondence Course

A Revised Correspondence Course in Bee Culture has been recently issued by the Extension Service at the Ohio State University. The Beekeeping Correspondence Course issued in 1933 has been a very popular one. Since May, 1933, this course has ranked first in enrollment among the Farm Correspondence Courses offered by the University. The new revision has brought the original course completely up to date. The revised course consists of twelve lessons and takes up thoroughly the various phases of Bee Culture. The twelfth lesson is devoted entirely to Orchard Pollination. There is no enrollment fee for the course. Full details may be obtained by request from Professor W. E. Dunham, Division of Bee Culture, Ohio State University, Columbus, Ohio.

Southern States Conference

By the time this number reaches readers, it will probably be too late but we hope a good number will attend the Southern States Beekeeping Federation in conference at Nashville, December 2 and 3. This is an outstanding event. Officers have arranged a splendid program and Nashville's doors are open to you. Mark these dates on your calendar. Let nothing interfere with this meeting if you can possibly attend it.

Virginia Beekeepers Meet in December

The Executive Committee of the Virginia State Beekeepers' Association recently named December 10th as the best date for the annual meeting and the program has been completed as below.

The Virginia Association has already asked officers of the American Honey Producers' League, American Honey Institute, and the Southern Beekeepers' Conference to seriously consider Lynchburg, Va., as the meeting place for the 1937 Joint Conference. These authorities will again be asked to remember Lynchburg heads the list of highly desirable locations for such a meeting, because:

First, it is in the heart of the old mother state.

Second, it is centrally located between the North and South.

Third, it is located in the most historic region of the U. S. A.

Fourth, it is surrounded by scenic grandeur—Natural Bridge, Sky Line Drive, Peaks of Otter, Shenandoah Valley of Virginia.

Fifth, its hotel accomodations are fully adequate.

Sixth, its newly completed modern armory affords room aplenty for all requirements.

Seventh, on the main highway between North and South.

Eight, within five hours' drive of the nation's capital.

REMEMBER LYNCHBURG for 1937.

A. D. Hiett.

Program Annual Meeting Virginia State Beekeepers' Association

The annual meeting of the Virginia State Beekeepers' Association, will be held in the Assembly Room of the Chamber of Commerce, Lynchburg, Va., Tuesday, December 10, 1935. The following program has been outlined:

Morning Session

10:00—"We Must Carry On," Prof. James Vinson.
10:20—Report Acting Secretary-Treasurer, W. A. Caldwell.
10:40—Committee Appointments.
11:00—"Honey Flora in North Carolina," C. L. Sams, N. C. Extension Specialist.
11:30—"Effect of A. H. I. Promotion in North Carolina," F. B. Meacham.
11:45—"Fruit Pollination," J. Phillip Vinson.
12:00—Committees Meet.
12.10—Lunch, Carroll (Hotel) Grill.

Afternoon Session

1:20—Report of Committees and Election of Officers.
1:45—"How I Manage Twelve Hundred Colonies," T. C. Asher.
2:10—"How the A. H. I. Aids Honey Salesmen," H. W. Weatherford.
2:30—"Honey Advertising in High Schools and Colleges," H. J. Cary.
2:45—"Contributions to the American Honey Institute," A. D. Hiett.
3:00—Business Session 1937 Convention.
3:30—Adjournment.

The Annual Meeting of the Idaho State Honey Producers' Assn.

The Idaho State Honey Producers' Association held its annual meeting November 7and 8 at Blackfoot, Idaho.

The principal features of the meeting were the address of Mrs. Malitta Jensen of the American Honey Institute, and the talk given by Dr. A. P. Sturtevant of the Field Apicultural Station, at Laramie, Wyoming.

Mrs. Jensen finds that the recipes worked out at the Institute for honey of the Central States, that she has been using, do not give the proper results when the western honey of Wyoming, Utah and Idaho are used.

This western honey is heavier, containing less water, and to get proper results less honey should be used in the recipes.

Mrs. Jensen organized a womans' auxiliary to aid in the spread of information on the use of honey in the home.

Dr. A. P. Sturtevant talked on the wintering problem, and gave as a result of the experiments performed at Laramie, that bees with wind break protection, but unpacked, have wintered as well or better than those that were packed. This with the winter temperature going to twenty below zero at times.

The part played by pollen in the production of bees and honey was explained. Spring dwindling seemed to be caused largely by lack of pollen. Colonies that were weak seemed to recover their strength when given pollen combs.

The use of two queen colonies was found to greatly increase the colony production. A queen excluder is placed over the lower hive body containing the old queen, two supers of comb are then added, and a super of sealed brood and young queen placed on top with outside entrance. During the honeyflow supers are added above making six and seven-story colonies.

When Caucasian and Italian queens were used it was found that the bees had intermingled nearly equally with both queens.

The officers elected for the coming year were Irving Powers of Parma, president; J. J. Lockie of Shoshone, vice president; Einar Nelson of Blackfoot, secretary-treasurer.

Frank Beach.

Conclusion of International Meeting Report

Due to the pressure of material in this Christmas number, we have decided not to finish the report of the International Meeting until the January issue. It would take up several pages in addition to the smaller reports in this Department which are quite numerous at this time of the year. So readers who are interested in the conclusion of the resume of the addresses at the International Meeting at Detroit, please look for it in our January number.

Pogue Loses by Fire in Indiana

Wm. A. Pogue, president of the Vigo County (Indiana) Beekeepers' Association, while attending a beekeepers' meeting, lost his honey house and equipment by fire recently. This is indeed a calamity. There was not insurance enough to cover and Mr. Pogue has spent years building up to his present position. We know that his friends in Indiana will extend sympathy to him and possibly help him in what he may need to carry on next summer. Pogue's address is St. Mary-of-the-Woods, Indiana.

Fire at Preston, Idaho

A fire of unknown origin destroyed the Hart & Olsen honey warehouse on October 31st. A ton of beeswax was stored in the building made fighting the fire one of the most difficult jobs the Preston volunteer firemen had ever had to fight. Heavy green smoke rolled away from the burning wax as the flames lit up the early morning sky. The loss is estimated at $8,000 with insurance amounting to $1,000.

The greatest loss was in the extracting machinery and equipment and hives stored for winter. A truck and touring car in the basement were completely destroyed. The season's crop of honey had been disposed of and none was in the building.

Dewey Olsen, of Weston, one of the owners, who had been in Preston giving instructions to an evening class, had parked his car in the basement of the building during the lecture to keep the radiator from freezing. He locked the building at nine o'clock and returned to Weston. He said that he was at a loss to explain the origin of the fire, as there was nothing in the building to occasion it. A. S. Hart of Preston was the other owner of the building, located near the heart of the city.

Glen W. Perrins,
Utah.

Clara Jones, President of Washington (Wis.) Association

Miss Clara Jones, West Bend, was elected president of the Washington County Association at the annual meeting in West Bend on November 11th. A. E. Wolkow, Hartford, president of the state association, was named vice-president and A. H. Seefeldt, Kewaskum, secretary-treasurer. Arno Kraetsch, Germantown, was elected delegate to the 1936 convention to be held in Fond du Lac.

Speakers included C. D. Adams, state apiary inspector; Miss Jones, who discussed advertising and Honey Week, and M. T. Buckley, West Bend, superintendent of schools, served as toastmaster at the banquet.

A resolution expressed appreciation for the work of E. L. Chambers, state entomologist and Mr. Adams, and to the Washington County Board of Supervisors, for advancing funds to carry on disease work was adopted.

Wisconsin Trade News Bureau.

C. W. Radloff, President, Shawano Association

C. W. Radloff of Cecil, Wisconsin, was elected president of the Shawano County Beekeepers' Association at the annual meeting in Shawano on November 4. Walter Folkman of Bonduel was named vice president, and E. S. Hildeman, Belle Plaine, secretary-treasurer. The association will hold its 1936 summer meeting at John Pulcifer's cottage on North Beach.

Wisconsin Trade News Bureau.

Report of Fifty-Seventh Annual Convention Wisconsin Association

A. E. Wolkow of Hartford was re-elected president of the Wisconsin Beekeepers' Association at its fifty-seventh annual convention November 7th and 8th at Waukesha. Arthur Schultz, Ripon, was named vice president; Mrs. Millie Frances, West Allis, secretary; Paul Cypher, Kewaskum, treasurer; H. J. Rahmlow, Madison, recording secretary.

At the annual banquet, Arthur Allen of Portage was presented with an honorary recognition certificate for outstanding services in beekeeping. Mr. Allen, a beekeeper for forty years, and well known throughout the state as a judge of honey exhibits, has contributed valuable service in honey production and has been one of the outstanding teachers of his region in beekeeping. This is the second certificate awarded. Last year the first went to C. D. Adams, state apiary inspector.

J. D. Beck, commissioner of agriculture and markets, urged adoption of the Wisconsin State Brand mark for all approved products leaving the state. He pointed to the better prices received for eggs, butter and potatoes bearing this mark and emphasized the fact that honey could likewise enjoy a wide and profitable sale particularly in the east where Wisconsin's quality products are in demand.

Dr. M. C. Tanquary and Father Francis Jager, of Minnesota, addressed the first day's sessions. Dr. Tanquary declares that honey has practically every mineral contained in the body and is rich in predigested sugars, iron, copper and manganese. He explained that the consumption of sugar is 120 pounds per capita per year in this country while the consumption of honey is under two pounds. Cane sugar is made up entirely of carbohydrates.

Father Jager explained how swarming may be controlled. He says bees swarm only when they feel prosperous and if they are made to think they are poor by supplying them with new store houses to fill, they are not apt to swarm.

The association declined to endorse a resolution from E. L. Chambers, state entomologist, providing for the eradication of bee diseases. A. H. Seefeldt, Kewaskum, sought to have the resolution amended by striking out the words, "including honey" and the motion was seconded. It was opposed by H. J. Rahmlow, who declared the association could not afford to vote against any portion of it for fear it would appear the organization was not in favor of doing all within its power to fight the disease.

Mr. Seefeldt argues that while it was commendable to destroy infected colonies, it was waste to dump honey as well. Chambers, earlier in the

(Please turn to page 593)

Crop and Market Report

Compiled by M. G. Dadant.

For our December Crop and Market page, we asked reporters to answer the following questions:

1. How is honey moving?
2. Are buyers advancing prices?
3. What percentage of honey is out of hands of producers?
4. Any suggested changes in price schedule last issue?

How Is Honey Moving?

Compared to a year ago, our report would be that honey is moving much better than it did in the fall of 1934, both in a retail, wholesale and in a jobbing way.

We find the movement moderate in volume in the East and becoming better as we go west until we reach the Plains and Inter-Mountain territory where the movement seems to be at its best, again tapering off on the Pacific Coast, particularly in California.

Out of all of our reporters only a few reported honey moving as slowly or stagnantly, most of them being fair, good and extra fine.

Are Buyers Advancing?

Reporters were about equally divided that buyers were not advancing prices and that there was a distinct advance. Particularly in the southeastern states, it seems that the buyers are not interested in any increased figure. In fact, some of our reporters suggested that buyers were beating down the prices wherever possible.

Here again, we find that general reports throughout the East and Southeast are that buyers are not paying any advance in price, whereas, as we work west, we find that there has been a quickening in the price, particularly on the part of bottlers and car lot buyers. This has meant, in most instances, an advance of at least one-half cent per pound over the original quotations this fall, and in some instances, up to one cent per pound higher.

Per Cent Out of Producers' Hands

It is in this category that we find the most phenomenal reports. Practically every report is to the effect that at least 50 per cent of the honey is out of the hands of the producers and in 90 per cent of the instances we would say that the report is for 75 per cent out of the hands of producers with many localities reporting 90 per cent already gone.

Again the most held on hand is in the eastern and southeastern states whereas it rapidly drops as we go west until we reach the Inter-Mountain territory where there is again a tapering off and a considerable larger amount held along the Pacific Coast.

Practically all of the honey held now, however, is held in rather strong hands, that is, either in the hands of the producer who is distributing himself at retail or who is anticipating getting his figure on his crop and not selling at the present market quotations in carload or jobbing lots.

Compared with a year ago, we would say that there is at least 25 to 35 per cent more honey out of the hands of producers than there was at this time in 1934.

Price Suggestions

Most of the reporters did not suggest any change in recommended prices over our page in November. There were a few, however, who suggested an advance in both retail and jobbing prices. More of them stated that they thought an advance in retail prices was justified but that it would be difficult then to compete with the same stores who apparently have purchased early a supply of honey to sell in the neighborhood of 45 to 50 cents for a five-pound pail.

In the jobbing categories is where most of the reporters recommended an advance in price over what we recommend in our Crop and Market page.

We believe, perhaps, that this recommendation is justified particularly in the Central states and the Plain states.

However, we hesitate to make any change in our price page. We must bear in mind that a distinct advance in prices of honey are apt to have the effect of a curtailment of demand unless at the same time retail prices throughout are advancing.

Recent commercial reports would indicate that retail prices advanced during the past month less than 1 per cent.

We are also confronted with other items which have some influence upon the price of honey. In the first place, there has apparently been a shortage in the sorghum crops this year which, no doubt, will have a quickening in the demand for honey particularly throughout the central states.

On the other hand, there has been an extremely heavy crop of fruit, which has for the past two months flooded the market and perhaps held down on the demand for honey. Almost all of the "panic" apples have now been disposed of and we may look for a little more orderly marketing in this respect, although the stocks in the hands of the storage houses is still excessive. We learned, recently that the inquiry for apples and the demand for them, the No. 1 packages, has been increasing.

Summary

Taken all in all, it does look as if honey was moving very satisfactorily and that the apparently short crop of this year which was augmented by late fall production will readily move before a new crop comes on at present prices. Whether there will be a carry over owing to the demand for higher prices on the part of some producers remains to be seen. It is doubtful, however, that any great amount will be carried over.

As to the condition of bees approaching winter, we believe that bees are in better condition for winter than they have been in many years. In a great many sections, there has been a late fall crop, which has not only helped to stimulate brood rearing and put into the hive a good force of young bees but it has also meant the crowding of the hive with a good stock of natural stores.

Apparently the fall season was sufficiently warm so that there was time to ripen all of the honey which was harvested and we doubt whether there will be a great deal of complaint of losses through unriped honey similar to the aster losses which have been reported in the past.

All in all, it looks like a fairly good clean up on the crop, bees going in the winter in good condition, and honey plants in about as fine a condition as they have ever been throughout most of the country. This does not apply to some parts of New York which are rather dry and in some sections in the Plain states which have not had as much rain as they need. However, late rains have been correcting this. In the white clover regions, the Dutch white clover prospects are extremely good.

The BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEES AND QUEENS

ITALIAN Queens. Northern bred, for Northern conditions.
Eugene Gordon, Hershey, Nebraska.

CAUCASIAN BEES AND QUEENS booked up for 1935 but accepting orders for 1936 delivery. Bolling Bee Co.. Bolling, Ala.

MOUNTAIN GRAY Caucasian bees and queens for 1936 delivery at Code prices. P. B. Skinner Bee Co., Greenville, Alabama.

HONEY FOR SALE

FOR SALE—Northern white extracted and comb honey.
M. W. Cousineau, Moorhead, Minn.

CHOICE Michigan Clover Honey. New 60's.
David Running, Filion, Michigan.

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

FOR SALE—Well ripened clover honey, car lot or local shipments. Will be pleased to submit sample. THE COLORADO HONEY PRODUCERS' ASSN., 1424 Market St., Denver, Colorado.

HONEY FOR SALE—Keep your customers supplied with honey. We can furnish white and light amber honey at attractive prices. Packed in 60-lb., 10-lb. or 5-lb. tins.
Dadant & Sons, Hamilton, Ill.

FOR SALE—Comb and extracted honey.
H. G. Quirin, Bellevue, Ohio.

CHOICE WHITE CLOVER HONEY in 60-pound cans. J. F. Moore, Tiffin, Ohio.

FINEST QUALITY white clover honey. $8 per case, 120 lbs. net. New cans. Sample 10c. W. J. Manley, Sandusky, Michigan.

FANCY CLOVER and fall honey.
Kalona Honey Co., Kalona, Iowa.

EXTRACTED HONEY, light and amber, Write for price.
Henry Price, Elizabeth, Illinois.

20,000 POUNDS extracted amber honey at 6½c; light amber 6¾. New cans and cases.
Valley View Apiaries, Savanna, Illinois.

FOR CHOICE AMBER extracted honey address Henry Stewart, Prophetstown, Ill.

FALL FLOWERS extracted in 60-lb. cans, two cans to the case, new cans and cases. Fine body, fine color. Ten tons now. Sample for the asking.
W. S. Earls & Son, New Canton, Ill.

HONEY AND BEESWAX WANTED

WANTED—Extracted Honey. Send sample and price delivered to T. W. Burleson & Son, Waxahachie, Texas.

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, Calif.

WANTED—HONEY and BEESWAX. Beekeepers will find it to their advantage to communicate with us. Please send samples, state quantity available and prices. CALIFORNIA HONEY COMPANY, Hamilton & Company, Agents, 108 W. Sixth Street, Los Angeles, California.

WANTED—Honey, all grades. Amber and capping melter honey our specialty.
Blue Ribbon Honey Co., Gurnee, Illinois.

WANTED HONEY FOR CASH—Truck lots and carloads—good Illinois, Indiana, Michigan, Ohio, Wisconsin, Minnesota, Dakotas and Western honey. We are large cash buyers—write us.
W. F. Straub & Company, Chicago, Ill.

WANTED—White and Light Amber Honey. Carlots or less. Clover Blossom Honey Co., 712 Kossuth St., Columbus, Ohio.

WANTED—Chunk-Comb and extracted honey in any amounts. Best prices paid.
Central Ohio Apiaries, Millersport, Ohio.

WANTED—Honey.
Russell Smalley, Rippey, Iowa.

WANTED

WANTED—To lease one to five hundred colonies of bees for next season located in Illinois or Iowa. References, Dadant & Sons. Address Box 21, care of American Bee Journal.

FOR SALE

STRAW BEEHIVES for roadside honey selling stands; English and landscape gardens; estates. Photos on request.
G. Korn, Berrien Springs, Mich.

FOR SALE—300 colonies of bees in modern 10-frame standard equipment, well located in six yards; they have lots of honey and extracting equipment.
T. W. Burleson & Son, Waxahachie, Texas.

SUPPLIES

BEST QUALITY bee supplies, attractive prices, prompt shipment. Illustrated catalog on request. We take beeswax in trade for bee supplies. The Colorado Honey Producers' Association, Denver, Colo.

PORTER BEE ESCAPES save honey, money, avoid stings; faster most efficient. Sample 15c. R. & E. C. Porter, Lewistown, Ill.

SAVE QUEENS. Safin cages now 15c. Ten for $1.00.
Allen Latham, Norwichtown, Connecticut.

DIFFERENT, that's all. Written and published for the instruction of beekeepers. 52 pages of breezy entertaining beekeeping comment each month. One year, $1.00; two years, $1.50. Sample, 3c stamp.
The Beekeepers Item, San Antonio, Texas.

WILL WORK YOUR WAX into plain medium brood foundation for 15 cents pound.
Fred Peterson, Alden, Iowa.

FOR SALE—Queen mailing cages. Material, workmanship and service all guaranteed. Write for quantity prices.
Hamilton Bee Supply Co., Almont, Mich.

FRAMES—Standard Hoffman $29.50 per 1000. Other supplies. Price list free. Northern Bee & Honey Co., Osceola, Wis.

DAIRY GOATS

DAIRY GOAT JOURNAL, Dept. 32, Fairbury, Nebr. Monthly magazine. 25c yearly; 5 months 10c.

MISCELLANEOUS

20 Xmas Greeting folders 50c. Name imprinted. Small lot printing.
Farmprint, Ashland, Wis.

BOOK BARGAIN—Very slightly damaged copies of Beekeeping in the South by Kenneth Hawkins, cloth bound, published to sell at $1.25, price postpaid only 29 cents.
American Bee Journal, Hamilton, Ill.

PLANS FOR POULTRY HOUSES — All styles; 150 illustrations. Tells you the type to build for your particular locality. Secret of getting winter eggs, and copy of "Inland." Send 25c.
Inland Poultry Journal, Spencer, Indiana.

FOR SALE — We are constantly accumulating bee supplies slightly shopworn; odd sized, surpluses, etc., which we desire to dispose of and on which we can quote you bargain prices. Write for complete list of our bargain material. We can save you money on items you may desire from it.
Dadant & Sons, Hamilton, Illinois.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents stamps. Membership of the Club, including subscription to the paper, 10/6. The Apis Club, Brockhill, London Road, Camberly, Surrey, England.

HAVE YOU any Bee Journals or bee books published previous to 1900 you wish to dispose of? If so, send us a list. American Bee Journal, Hamilton, Ill.

Why Monkey With a Cell Laying Queen?

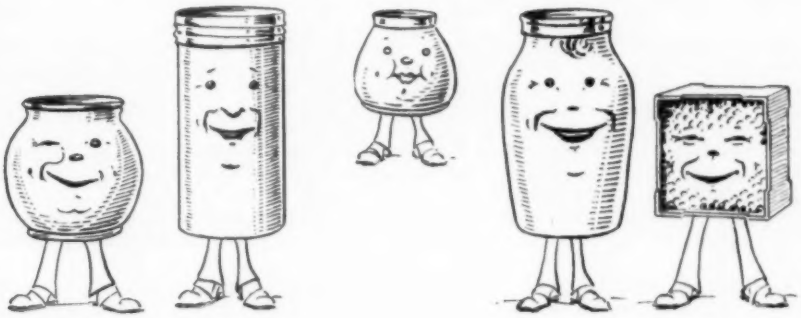
In "All Around the Bee Yard," Cale says "About the only successful way I have found to control swarming in the large hive is to remove the queen, cut out all queen cells and give a young laying queen."

That is the method I use regardless of the size of hive. Why monkey with a cell laying queen? Of course there are conditions in which the queen is not to be blamed. If a colony is crowded for room, especially at the beginning of the main flow when our swarming problem is most severe, I may just kill the cells.

Often I have done this and have no further trouble for the rest of the season, but if the cells are advanced or the queen looks old, I usually pinch the queen and kill the cells also. To continue killing cells only provokes loafing. I have never been able to see any difference in the way a queenless colony which is building cells and a queenright colony works. They may even mate a queen of their own and go right on doing good work. But, of course, such a colony suffers later through lack of worker replacement.

Except at the beginning of the flow, or if a colony becomes crowded, a cell laying queen is usually on the downgrade and if removal of brood, or any other method is used to keep her on the job and prevent swarming, the colony suffers later from lack of brood.

Geo. Harrison, Jr.,
Virginia.



Let Us Do the Talking!

WE'VE BEEN AROUND—through the hive, in the honey house and MARKET and we know a FEW FACTS OURSELVES. Because American Honey Institute is PROVING OUR FITNESS in the Daily Menu, we're in the grandstand and we want to stay there. Our popularity is increasing in commercial fields as well.

In March and April of 1934, (usually we are a drug on the market during these months) we were very prominent. Magazines with a circulation of more than ten million told their readers (mostly homemakers) of how good we are.

We were so good in the Chocolate Cake they made at Betty Crocker's kitchen that from October 1 to November 9th, 1935, Gold Medal Foods, Inc., spent $250,000 on advertising and merchandising of that cake—Remember, just because we were in the cake.

And how did we get into that cake? ????

Not by BALLYHOO but by the everyday performance of AMERICAN HONEY INSTITUTE.

And in October of the same year, more than two hundred food teachers all over the United States wrote and asked about us; they had heard that our nutritional values were described in the new book "100 Honey Helpings." American Honey Institute was good enough to write about us and because those values were true ones, AMERICAN MEDICAL ASSOCIATION put the SEAL OF ACCEPTANCE of their Foods Committee on the copy. You didn't know, did you, that American Honey Institute investigated and pushed and planned for four years to get that seal just to make us popular. Well, we knew it and we know many more reasons why we are becoming more popular.

You can know what we know, if you'll study the releases of American Honey Institute.

We beg you, beekeepers, as our managers to keep us before the public, active and happy.

If you don't, we'll wager that we'll have to take a seat back so far that we'll be ashamed to disclose our identity.

The POSTSCRIPT

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

At the farm we are making plans for hotbeds for next spring's plant business. When one sees how much one can do to hurry up the season for plants by this means it makes him wonder whether there might be some way to hurry the bees along in similar manner. In many localities there are good early flows from maple, dandelion and fruit bloom which the bees fail to utilize because the colonies are too weak. If we had as big colonies in April as we have in June good crops of early honey could often be harvested.

— : —

A letter recently came to the office from one who said that he bought a beehive and placed it in the yard last spring. He wanted to know what was the matter because he had no bees in it. He stated that he had purchased a martin house at the same time and very soon had a family of martins. This is a new one, but now and then it happens that someone wants to know where to buy a pair of bees with which to start an apiary.

— : —

How often the radio brings us a surprise. On Sunday night's broadcast I chanced to tune in on a Texas station only to hear the announcer say, "Burleson's honey is made by government inspected bees which roam over the meadows and cool cotton fields. Ask your grocer for Burleson's honey." It is nearly eighteen years since I learned something about Texas cotton honey at the home of T. W. Burleson at Waxahachie and it was certainly a surprise to receive his invitation to try his product when sitting beside my radio a thousand miles from his apiary. Thus his advertising extends far beyond the limits of the territory served by the grocers who handle Burleson's honey. Perhaps he will help sell some honey for the rest of us as well.

— : —

An interesting letter from W. H. Eastman, of Wilsey, Kansas, discusses several honey plants, including borage. He says that the bees were on it all day long and the only thing he would fear is that the quality of the honey might not be good. He quotes Langstroth as saying that quality of borage honey is very fine.

It is very easy to be mistaken regarding the quality of honey from any plant which is present in small numbers. Too often the honey is mixed with other sources to such an extent as to make it impossible to tell with certainty what the pure product would be like. Reports from localities where borage is abundant indicate that the quality of borage honey is inferior.

— : —

Mr. Eastman also mentions pleurisy root as giving a fair yield for him. Pleurisy root is a milkweed once common to the prairies which is now commonly grown in the gardens for its orange colored flowers. In 1887 James Heddon wrote that he would rather have one acre of pleurisy root than three acres of sweet clover and stated that if there was any plant worthy of growing for honey alone on good land it was this. He regarded it as the best honey plant which he knew, not excepting white clover and basswood.

Too bad these gardeners do not grow such plants in larger areas.

— : —

Reports of the poisoning of bees continue to come to us from constantly widening areas. An Idaho correspondent writes that the trouble is getting so bad in the orchard districts that it is necessary to take all the bees to the mountains in the spring. He has had to abandon two good locations entirely and fears he will have to leave two more for the same reason. One cannot but wonder what will be the final result for the orchardist when they have completed the job of driving out the bees.

— : —

There is so much interest in the new species of lespedeza which are being introduced as forage crops that the beekeepers want to know about each one that comes to public attention. Always they want to know whether they are of value to the bees. My own interest has been especially aroused in **Lespedeza bicolor.** This one is a shrub which grows to a height of ten feet. It comes from Japan and has been reported as hardy as far north as South Dakota, although not dependably so, as it sometimes winter kills much farther south. Bees sometimes work on it but there is nothing to indicate that it is an important bee plant. I am hoping to secure seed and give it a trial.

— : —

With the bees in the experimental apiary all packed away in tar paper cases there is nothing more which can be done with them now except to wait for spring. I am accordingly planning to get away to southern Texas where one can spend the days in the sunshine among the orange groves. Perhaps there is something to be learned about bees and flowers in a warmer clime. On a former trip to that region I became much interested in the honey making ants through the kindness of the Texas naturalist-beekeeper, H. B. Parks. He has a wonderful wealth of information about the fauna and flora of the Lone Star State and I hope to glean some new things through him and other Texas beemen.

— : —

There are so many hunters among the members of this organization that it is hard to keep the staff in working order during the hunting season. Henry Dadant escaped to the sand hills of Nebraska for a couple of weeks' shooting and then Maurice and Louis Dadant and Roy Grout went to the camp on an island in the Mississippi for the duck season.

With the hunting season over things are getting back to normal at the office.

— : —

Edgar Abernathy, of Stanley, North Carolina, writes that his experience with sourwood does not agree with J. J. Wilder as mentioned in the November postscript. He has secured no honey from sourwood in dry seasons while getting a fair crop with normal rainfall. He says that because the sourwood is a shallow-rooted tree it is quick to suffer from drought.

— : —

Mr. Abernathy is enthusiastic about vetch as a honey plant and says that but for it the local crop would have been a failure the past season. The honey is light with good flavor although a bit strong for some tastes. He is puzzled because the bees worked blackberry blossoms so heavily the past season and hardly noticed them the year before. He did not think the difference in weather conditions at blooming time the two seasons was sufficient to explain it.

Much observation and careful comparison will be needed to enable us to solve the problems relating to nectar secretion. Notes like the above for this page are very welcome.

— : —

With more than 200 colonies of his own bees and 500 of Dadants to look after, together with the responsibility of getting out the Journal each month, and a few other jobs, G. H. Cale has had a busy season. Glory, (we still call him Glory Hallelujah around here), thus has a background of very practical experience which is helpful in his editorial work, although it sometimes makes him hustle to get everything done.

About everybody in this gang, except the office girls, have had very real work with the bees and know something about the problems of the man who makes his living producing honey. It is a very fascinating kind of business but at the same time is not without its unpleasant features.

Merry Christmas from me to you.

FRANK C. PELLETT.

Meetings and Events

(Continued from page 585)

session, had outlined progress in the control of disease and recommended that honey in diseased colonies be destroyed.

Fond du Lac was chosen as the convention city for 1936.

Wisconsin Trade News Bureau.

Are You Sure of Your Place on the Honor Roll?

The membership Honor Roll of the American Honey Institute will go to press the 31st of this month (December). Beekeepers who have not yet sent in their memberships for 1935 should do so before this date in order to have their name included.

Previously, beekeepers whose memberships have been received after the printing of the Roll complained they did not know the deadline date. So remember, it is December 31st. Beekeepers are woefully slow about recognizing this difficulty and should make sure that their membership to the Institute is sent in. The basis of support should now be well known. $1.00 per ton of honey. (Of course more will be acceptable too!)

Knox County (Ill.) Gathering

The first annual meeting of the Knox County Beekeepers' Association was held in Galesburg, Illinois, on Saturday, November 2, 1935.

Mr. Elmer Kommer, deputy bee inspector, gave a talk on the trend of beekeeping in the county and the cooperation of the beekeepers in the eradication of bee diseases.

G. H. Cale, of Hamilton, Illinois, was the principal speaker and his topic was "Chemicals in Beekeeping," a talk similar to his comments on "Whisking Off the Honey" in the July issue of the American Bee Journal.

Ernest Huggins,
Secretary.

Empire Association (N. Y.) to Meet in Syracuse, Dec. 12 and 13

The Empire State Honey Producers' Association will hold its annual winter meeting on the 12th and 13th of December (Thursday and Friday) at the Mizpah Hotel in Syracuse, New York.

A program has been arranged to interest both the beekeepers and their wives. Mrs. M. F. Jensen of the American Honey Institute will be with us to give Honey Talks and Demonstrations. For details, write to E. T. Cary, Secretary, Midland Ave. and Tallman St., Syracuse, New York.

E. T. Cary,
Secretary-Treasurer.

One Hundred Meet at Ogden

More than one hundred beekeepers of Utah met at Ogden, October 5th, for the annual meeting. Dr. A. P. Sturtevant of Laramie, Wyoming, reported an approach to normal conditions and a more favorable outlook in beekeeping. Dr. Sturtevant said honey producers "must operate at a minimum cost to realize a profit." Speaking on "New Developments in Production of Honey," he presented a discussion of the influence of pollen reserves on the wintering of bees and on resultant honey production. He pointed out a sufficient amount of pollen in the fall develops a more vigorous colony the following spring. Successful wintering is the most important problem of beekeepers and insufficient pollen means the larvae cannot develop from the eggs.

Dr. Sturtevant advised the keeping of two queens in each colony as a means of increasing honey gathering. A single queen colony he said produces between 50,000 and 60,000 bees compared with 100,000 in a two-queen colony. A stronger colony produces more honey than the weaker one at less cost.

Mrs. Malitta F. Jensen, Secretary of American Honey Institute, Madison, Wisconsin, addressed the beekeepers on the activities of the American Honey Institute with the subject "What the Institute Is Doing and What It Means." She stressed the objective as "an education association organized to improve industry by creating a greater demand for honey." Through a display of charts Mrs. Jensen showed the efforts of the Institute to make people honey conscious and a decided response from the manufacturers of candy and from bakers of the past few years.

The meeting went on record as favoring a campaign to make Utah outstanding in the support of the Institute. Election of officers was delayed until early in 1936 when the Association will meet at Salt Lake City during the Utah Farm Bureau gatherings, probably in January.

Glen Perrins,
Utah.

Officers Illinois Association 1936

President, W. G. Duckwall, Route 2, Jacksonville, Ill.; Secretary, E. F. Peterson, 822 Junior Ave., Kewanee, Ill.; Treasurer, Wesley W. Osborn, Hillsboro, Ill.; Ist Vice President, Adam Bodenschatz, Lemont, Ill.; 2nd Vice President, Ray Rocke, Morton, Ill.; 3rd Vice President, A. G. Gill, Chicago, Ill.; 4th Vice President, Robert Gober, Oregon, Ill.; 5th Vice President, Harvey Foote, Green Valley, Ill.

Volume LXXV — INDEX — 1935

ILLUSTRATIONS

CONTRIBUTORS